

# TEAC®



## SERVICE MANUAL

# BX-500

High Speed DC Integrated Amplifier

# BX-300

DC Integrated Amplifier

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#### CAUTION

△ Parts marked with this sign are safety critical components. They must always be replaced with identical components - refer to the TEAC Parts List and ensure exact replacement.

## 1 SPECIFICATIONS AND SERVICE DATA

### SPECIFICATIONS

	BX-500	BX-300
Input Level		
PHONO MC	50 $\mu$ V	50 $\mu$ V
PHONO MM	2.5 mV	2.5 mV
TUNER, AUX	150 mV	150 mV
TAPE 1, 2	150 mV	150 mV
Input Impedance		
PHONO MC	33 ohm	15 ohm
PHONO MM	47 k ohm	47 k ohm
TUNER, AUX	10 k ohm	10 k ohm
TAPE 1, 2	10 k ohm	10 k ohm
Output Level		
TAPE REC 1, 2	150 mV	150 mV
Rated Output Power		
(Both channels driven, Distortion 0.1 %, Impedance 8 $\Omega$ , 1 kHz)	55 W + 55 W	35 W + 35 W
Required Speaker Impedance		
SPEAKERS Select A or B	4 ~ 16 ohm	4 ~ 16 ohm
SPEAKERS Select A + B	8 ~ 16 ohm	8 ~ 16 ohm
Power Consumption	100 W	80 W
Weight	8.5 kg (18-12/16 lbs)	8.0 kg (17-10/16 lbs)
Dimensions		
Width	410 mm (16-1/8")	410 mm (16-1/8")
Height	140 mm (5-1/2")	140 mm (5-1/2")
Depth	272 mm (10-11/16")	272 mm (10-11/16")
Power Requirement and Frequency		

MODEL	Voltage (V)	Frequency (Hz)
GENERAL EXPORT	100,117,220,240	50/60
EUROPE	220	50
U.K., AUSTRALIA	240	50
U.S.A., CANADA	117	60

### SERVICE DATA

Power Muting Time 3~8 Seconds

AUX Section Characteristic

Frequency Response 10 Hz ~ 30 kHz (0 dB  $\pm$  1 dB)

Input: 1 kHz, 7 mV  $\pm$  3 dB

Output: 1 V

TONE Controls

	100 Hz	1 kHz	10 kHz
BASS and TREBLE MAX	+7dB $\pm$ 1dB	0dB $\pm$ 1dB	+7dB $\pm$ 1dB
BASS and TREBLE MIN	-7dB $\pm$ 1dB	0dB $\pm$ 1dB	-7dB $\pm$ 1dB

Harmonic Distortion	20 Hz	Less than 0.01%
	1 kHz	Less than 0.008%
	20 kHz	Less than 0.1%

Channel Separation More than 42 dB (At 1 kHz)

Noise Level Less than 560  $\mu$ V (-65 dB), Weighted

Damping Factor (8  $\Omega$ ) 50

LOUDNESS Control (-40 dB)

100 Hz	+8 dB $\pm$ 1 dB
20 kHz	+5 dB $\pm$ 1 dB

Muting Circuit (BX-500) -21 dB  $\pm$ 2 dB

LOW CUT Filter (BX-500) -3 dB  $\pm$ 1 dB/20Hz

TONE OUT Circuit (BX-500)

a) Frequency Response	10 Hz	+0 dB
		-1 dB
	100 kHz	+0 dB
		-5

b) Harmonic Distortion	20 Hz	Less than 0.008%
	1 kHz	Less than 0.008%
	20 kHz	Less than 0.2%

c) Noise Level	Less than 200 $\mu$ V (-74 dB), Weighted
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#### Phono MM Section

Input Level (Input terminal 3.3 ohm) 2.5 mV  $\pm$  3 dB (1 kHz)

Frequency response (RIAA Characteristic)

20 Hz	+19 dB $\pm$ 1 dB
100 Hz	+13.1 dB $\pm$ 0.5 dB
1 kHz	0 dB
10 kHz	-13.7 dB $\pm$ 0.5 dB
20 kHz	-19.6 dB $\pm$ 1 dB

Noise Level Less than 48  $\mu$ V (-86 dB), Weighted

Harmonic Distortion	20 Hz	Less than 0.01%
	1 kHz	Less than 0.005%
	20 kHz	Less than 0.1%

#### Phono MC Section

Input Level (Input Terminal 3.3 ohm) 50  $\mu$ V  $\pm$  3 dB (1 kHz)

Frequency response (RIAA Characteristic)

20 Hz	+19 dB $\pm$ 1 dB
1 kHz	0 dB
20 kHz	-19 dB $\pm$ 1 dB

Noise Level Less than 250  $\mu$ V (-72 dB), Weighted

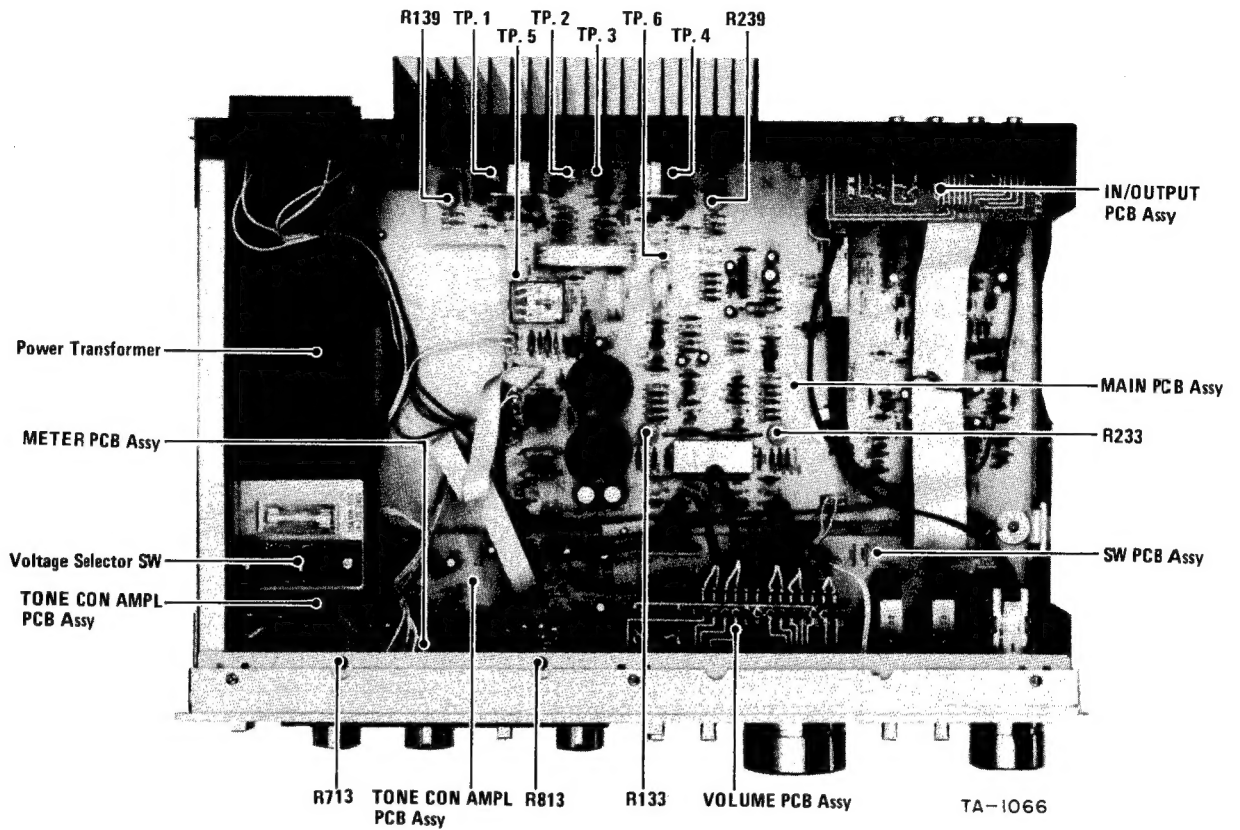
Harmonic Distortion	BX-500	BX-300
20 Hz	Less than 0.03%	Less than 0.1%
1 kHz	Less than 0.03%	Less than 0.1%
20 kHz	Less than 0.7%	Less than 0.7%

The power requirements for products distributed in certain countries of Europe, U.K., Australia, Canada and the United States are not adjustable.

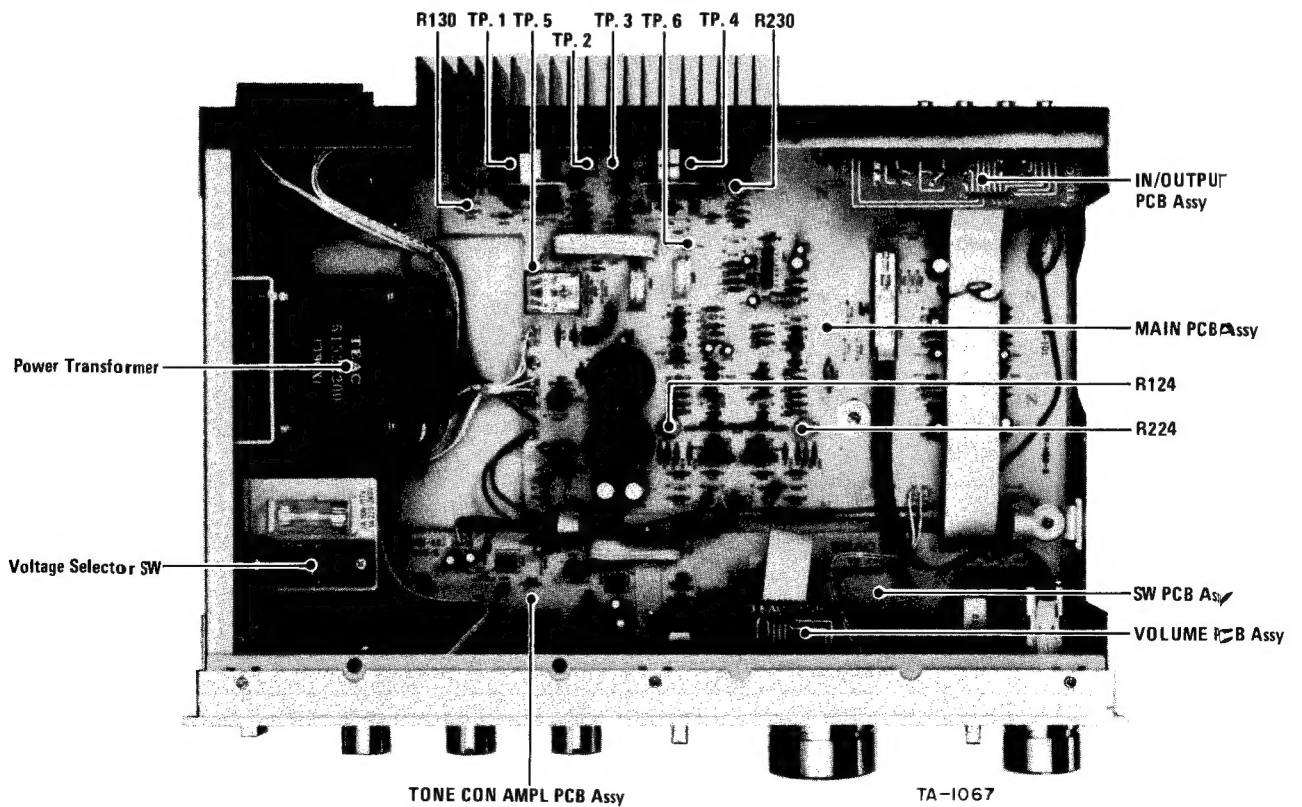
- Improvements may result in features or specifications change without notice.

**2 PARTS LOCATION**

**BX-500**



**BX-300**



## 3 ADJUSTMENTS AND VOLTAGE CONVERSION

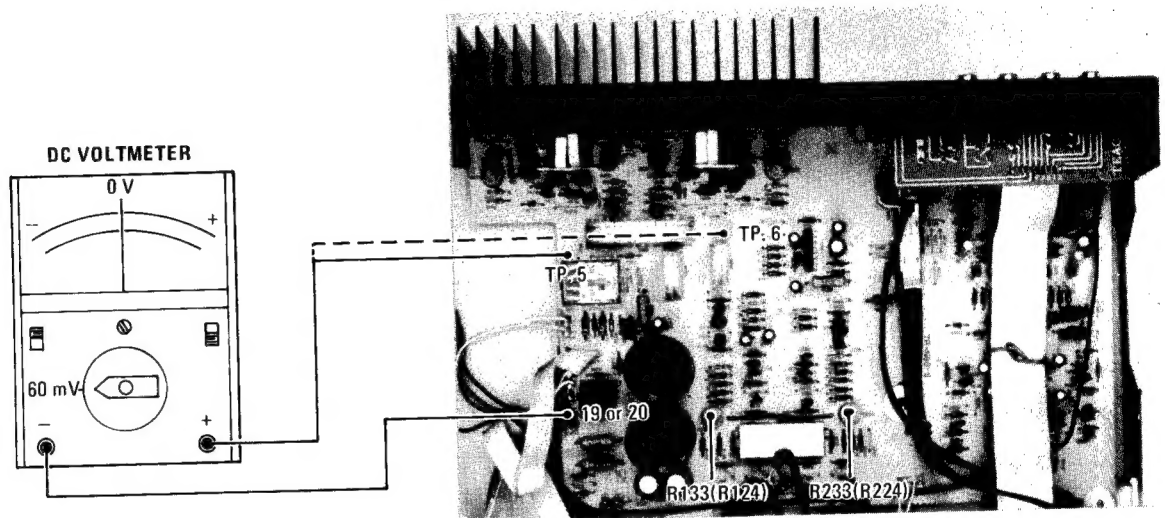
### 3-1 BEFORE ADJUSTMENT (Do not apply AC power)

1. Set the VOLUME control to MIN and SPEAKERS selector to OFF.
2. Set the semi-fixed variable resistors at the following positions.
  - R133/R233 (BX-500) At the center of full turning range
  - R124/R224 (BX-300) Fully counter-clockwise
  - R139/R239 (BX-500)
  - R130/R230 (BX-300)

### 3-2 MID-POINT POTENTIAL ADJUSTMENT

1. Depress POWER switch to ON.
2. Connect the DC voltmeter between T.P-5 (for L-ch) or T.P-6 (for R-ch) and GND.
3. Adjust R133/R233 (BX-500) or R124/R224 (BX-300) so that the voltmeter indicates  $0\text{ V} \pm 10\text{ mV}$ .

Note: A differential voltmeter is preferable.

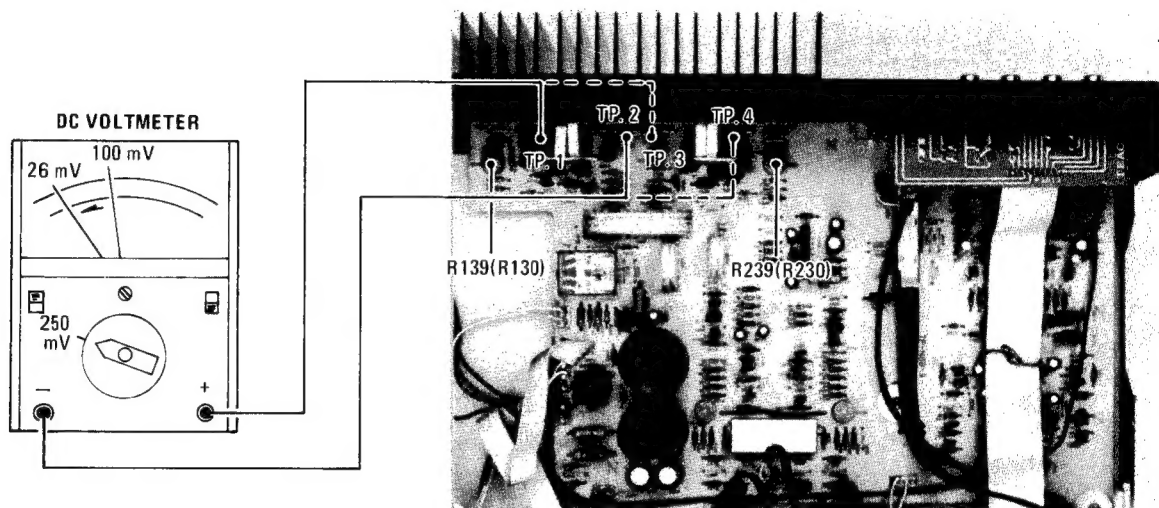


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**3-3 IDLING CURRENT ADJUSTMENT**

1. Connect the DC voltmeter between T.P-1 and T.P-2.
2. Adjust R139 (BX-500) or R130 (BX-300) so that the DC voltmeter indicates approx. 100 mV.
3. After R139 (BX-500) or R130 (BX-300) adjusted, wait 30 seconds for idling.
4. Readjust R139 (BX-500) or R130 (BX-300) so that the DC voltmeter indicates  $26 \text{ mV} \pm 15 \text{ mV}$ .
5. Connect the DC voltmeter between T.P-3 and T.P-4.
6. Repeat procedures 1 to 4 above and adjust R239 (BX-500) or R230 (BX-300).

**NOTE:** When using an oscilloscope, instead of the DC voltmeter, carefully connect the oscilloscope so that the oscilloscope GND terminal is not connected to the GND of the amplifier, thereby causing a short. Use the oscilloscope in the floating state.



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**3-4 POWER OUTPUT METER ADJUSTMENT (BX-500 only)**

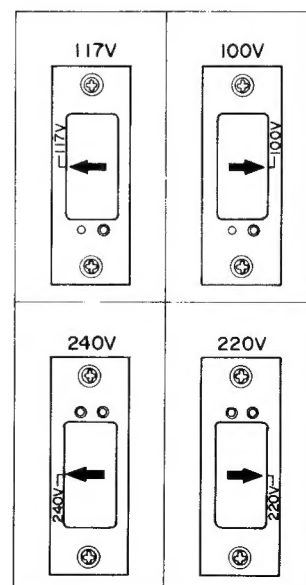
1. Connect the AC voltmeter to the SPEAKERS A terminal.
2. Set the SPEAKERS selector to A and SOURCE selector to AUX.
3. Set the VOLUME control to MAX.
4. Apply a 1 kHz input signal to provide an output power of 50 W (approx. 20 Vrms) to AUX terminals (AUX input approx. 150 mV).
5. Adjust R713 and R813 so that the Power Output Meters indicate 50 W.

**NOTE:** BX-500 should be placed in the normal operating position.

**3-5 VOLTAGE CONVERSION  
(GENERAL EXPORT MODEL ONLY)**

BE SURE TO REMOVE THE POWER CORD FROM THE AC OUTLET BEFORE REMOVING THE OUTER CASE AND REPOSITIONING THE VOLTAGE CONVERSION PLUG.

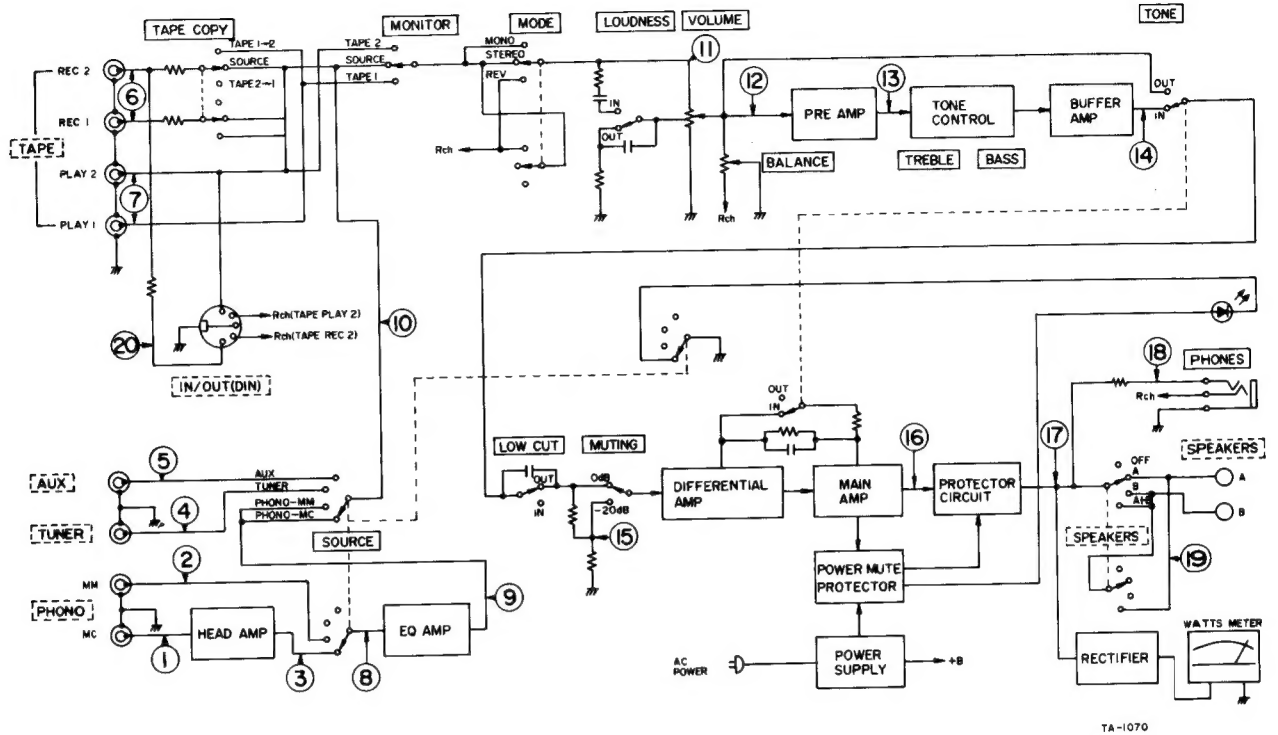
1. Remove the top and side metal cover by removing screws in each side of the metal cover.
2. Locate the voltage selector plug on the left side of the BX-500, BX-300.
3. Remove the plug by pulling it out and re-install it so that the arrow on the plug exactly lines up with the white line that indicates the appropriate voltage.
4. Replace the top cover.



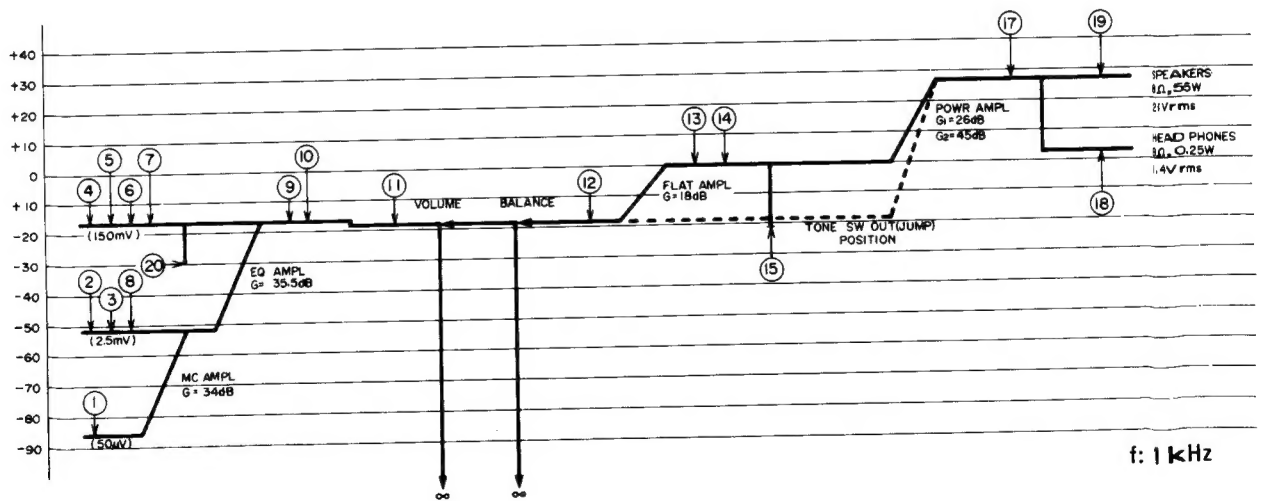
TA-1065

## 4 BLOCK AND LEVEL DIAGRAM

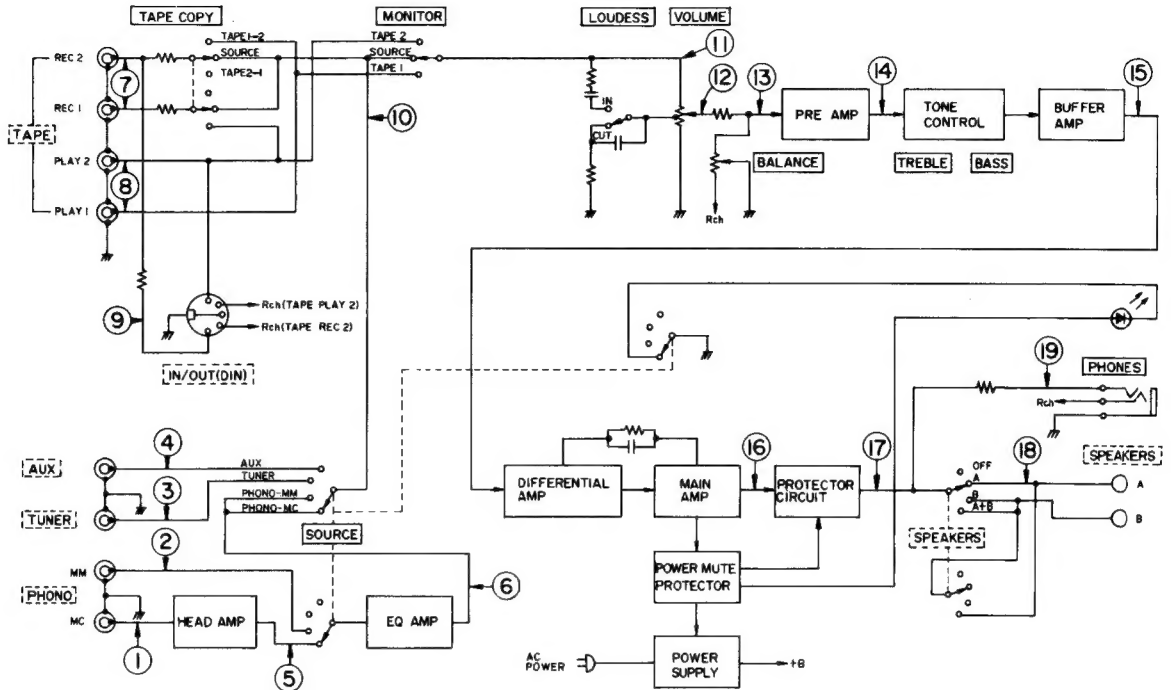
### BX-500



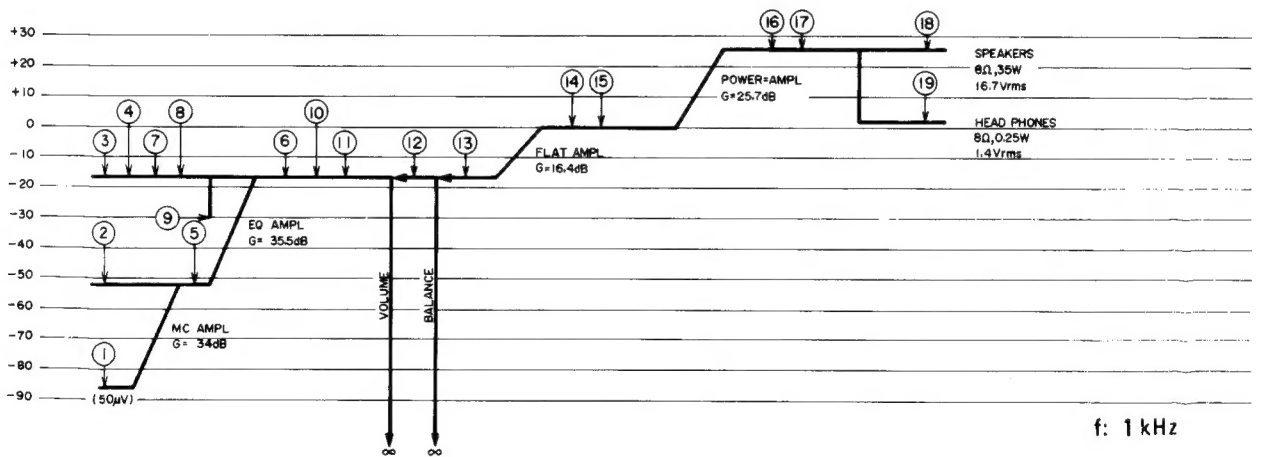
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## BX-300



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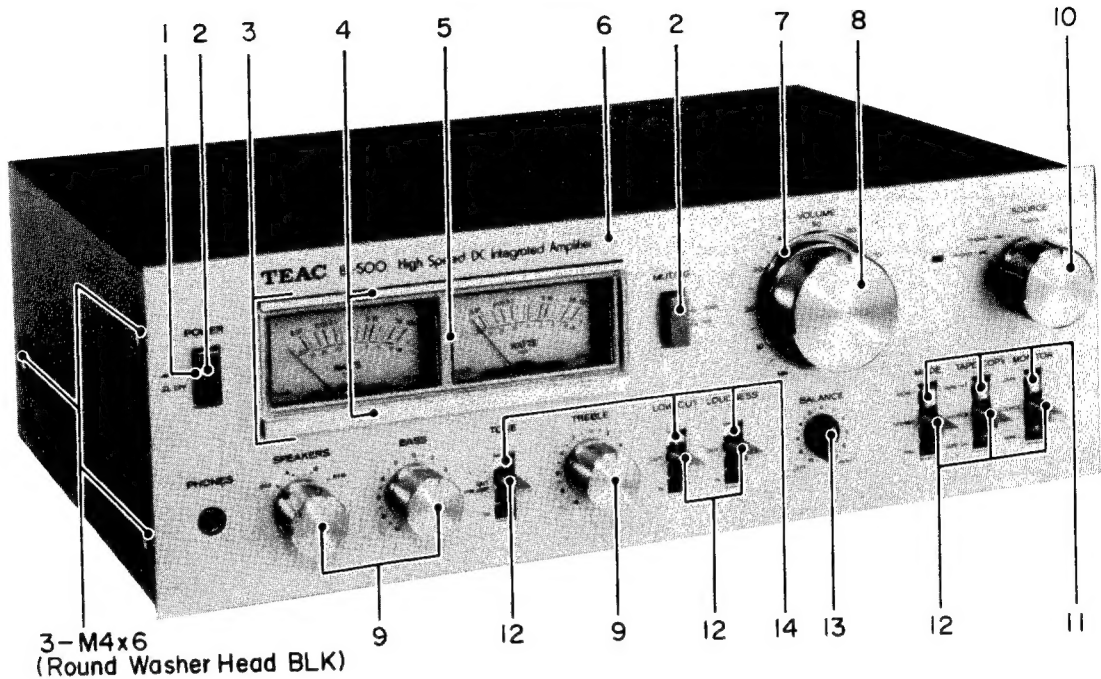
f: 1 kHz

# BX-500/BX-300

## 5 PARTS LOCATION AND PARTS LIST (BX-500)

NOTE: BX-500B on parts list shows black type of front panel.

### PARTS LOCATION-1

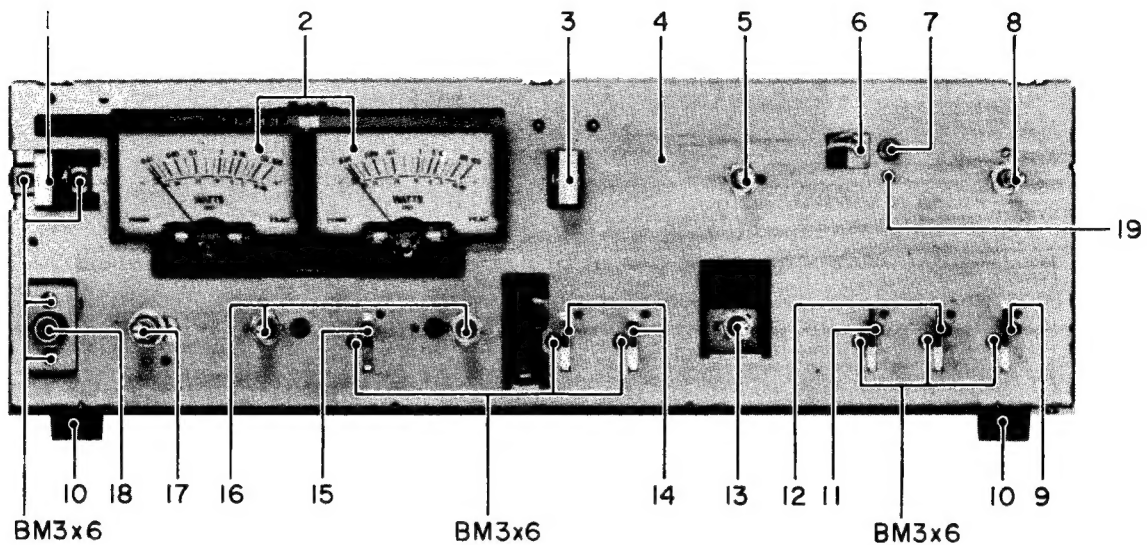


Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*5534772000	Escutcheon, Power Switch	(BX-500B)
	*5800004800	Escutcheon, Power Switch	(BX-500B)
1 - 2	5534774000	Button, Power Switch	(BX-500B)
	5800004600	Button, Power Switch	(BX-500B)
1 - 3	*5503215000	Cover Assy, Meter	(BX-500B)
	*5800005200	Cover Assy, Meter	(BX-500B)
1 - 4	*5533224000	Escutcheon, Meter	(BX-500B)
	*5800005100	Escutcheon, Meter	(BX-500B)
1 - 5	*5533220000	Cover, Meter	(BX-500B)
1 - 6	*5502252000	Panel Assy, Front	(BX-500B)
	*5800006600	Panel Assy, Front	(BX-500B)
1 - 7	*5553327000	Escutcheon, Volume	(BX-500B)
	*5800007100	Escutcheon, Volume	(BX-500B)
1 - 8	5555784000	Knob, VOLUME	(BX-500B)
	5800007000	Knob, VOLUME	(BX-500B)
1 - 9	5555785000	Knob, SPEAKERS · BASS · TREBLE	(BX-500B)
	5800007200	Knob, SPEAKERS · BASS · TREBLE	(BX-500B)
1 - 10	5555729000	Knob, SOURCE	(BX-500B)
	5800007300	Knob, SOURCE	(BX-500B)
1 - 11	*5534781000	Escutcheon, Lever (3P)	(BX-500B)
	*5800007500	Escutcheon, Lever (3P)	(BX-500B)
1 - 12	5534779000	Knob, Lever	(BX-500B)
	5800007600	Knob, Lever	(BX-500B)
1 - 13	5555781000	Knob, BALANCE	(BX-500B)
	5800004400	Knob, BALANCE	(BX-500B)
1 - 14	*5534780000	Escutcheon, Lever (2P)	(BX-500B)
	*5800007400	Escutcheon, Lever (2P)	(BX-500B)



## PARTS LOCATION-2



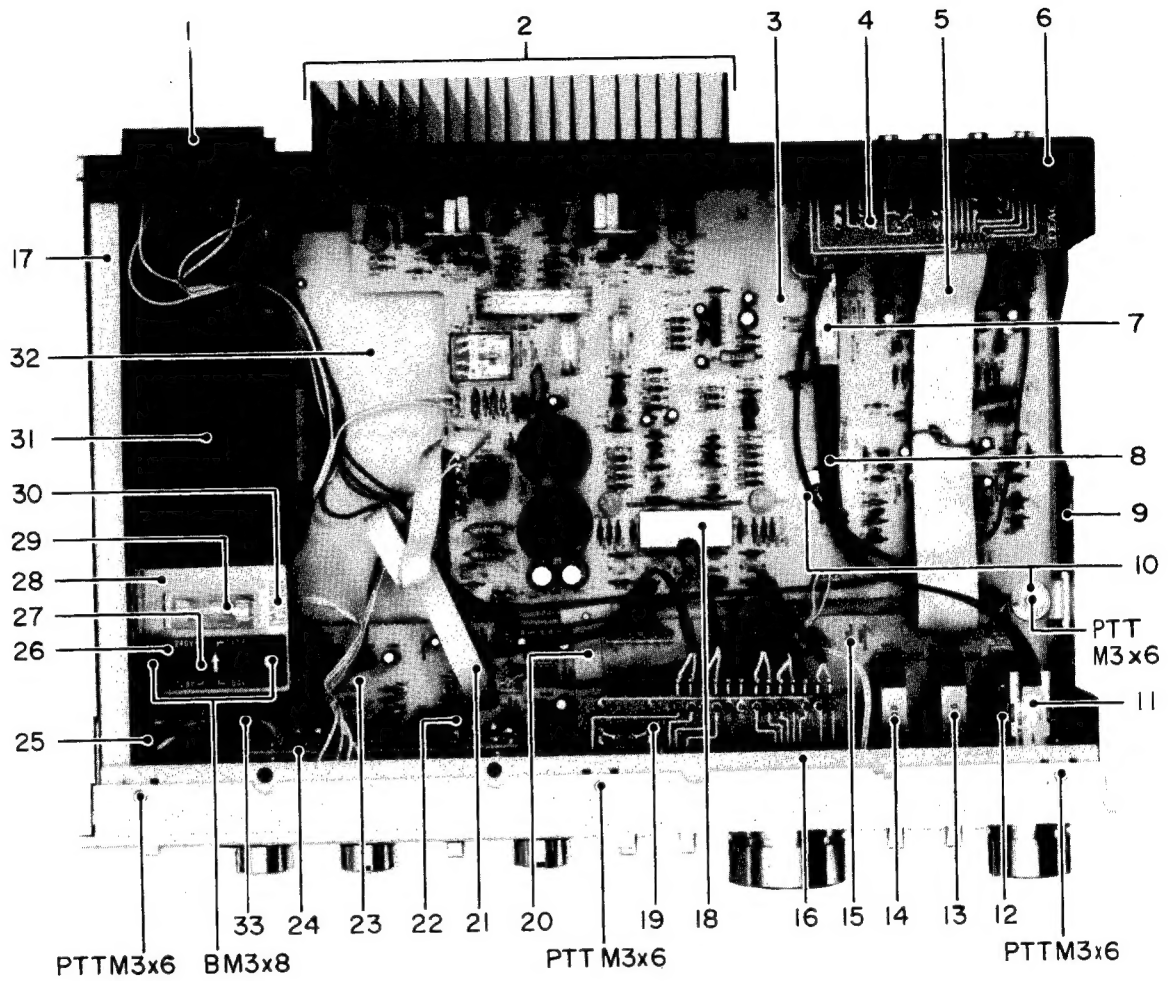
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Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	△ 5134111000	Switch, Power	JAPAN, GENERAL EXPORT U.S.A., CANADA EUROPE, U.K., AUSTRALIA
	△ 5134112000	Switch, Power	
	△ 5134125000	Switch, Power	
2 - 2	5165066000	Meter, Power Output	(BX-500B)
	5296000200	Meter, Power Output	
2 - 3	*5134113000	Switch, Push	
2 - 4	*5551042000	Chassis, Front	
2 - 5	5150250000	Resistor, Variable 100 k ohm-B x 2	
2 - 6	*5158031000	PCB Assy, LED	Part of 2 - 6
	*5157031000	PCB, LED	
2 - 7	5143139000	LED, (Green) SLB-26GG1	Part of 2 - 6
2 - 8	*5138014000	Switch, Operation	
2 - 9	*5132055000	Switch, Lever	
2 - 10	*5534432000	Foot	
2 - 11	5132050000	Switch, Lever	
2 - 12	5132054000	Switch, Lever	
2 - 13	5150249000	Resistor, Variable 300 k ohm	
2 - 14	5132051000	Switch, Lever	
2 - 15	5132048000	Switch, Lever	
2 - 16	5150251000	Resistor, Variable 50 k ohm-B x 2	
2 - 17	5133016000	Switch, Rotary	
2 - 18	5124022000	Jack, Phones	
2 - 19	*5534118000	Rivet, Push	

# BX-500/BX-300

## PARTS LOCATION-3



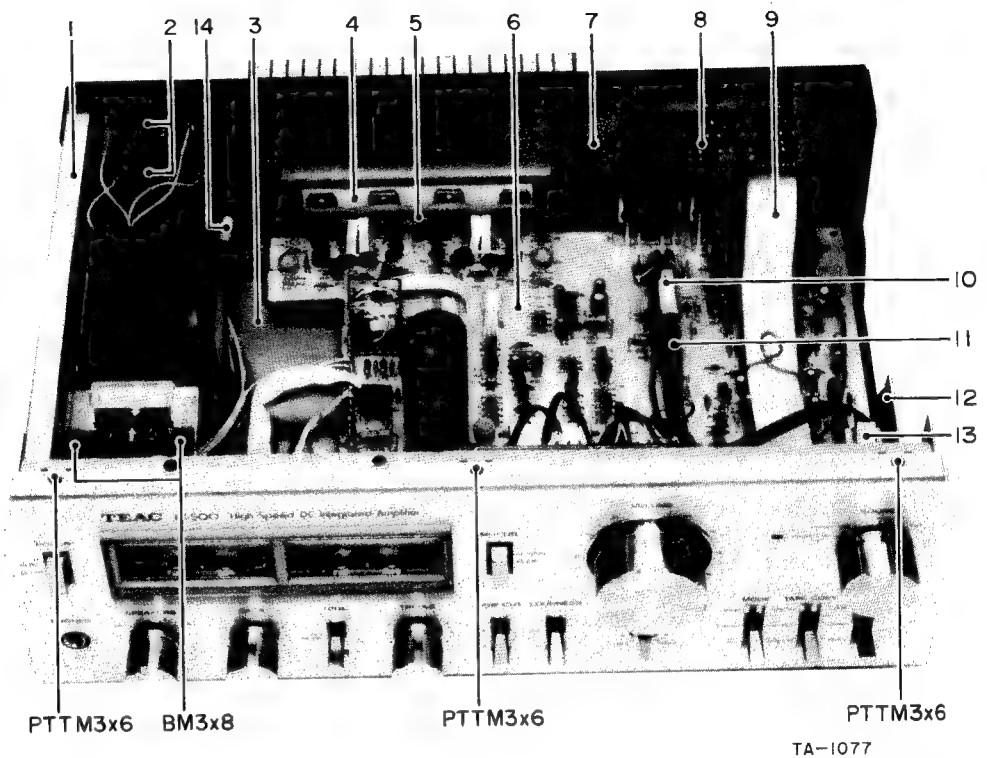
TA-1076

Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	*5122399000	Terminal, 4P Push	
3 - 2	*5553331000	Heat Sink	
3 - 3	*5158029000	PCB Assy, MAIN	
	*5157029000	PCB, MAIN	Part of 3 - 3
3 - 4	*5158024000	PCB Assy, IN/OUTPUT	
	*5157024000	PCB, IN/OUTPUT	Part of 3 - 4
3 - 5	*5127616000	Lead, Jumper	
3 - 6	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA
	*5552445000	Panel, Rear	
3 - 7	*5138016000	Switch, Slide	
3 - 8	*5138017000	Switch, Wire	
3 - 9	*5553329000	Shassis, Right Side	
3 - 10	*5580007000	Washer	
3 - 11	*5138014000	Switch, Operation	
3 - 12	*5132055000	Switch, Lever	
3 - 13	*5132054000	Switch, Lever	
3 - 14	*5132050000	Switch, Lever	
3 - 15	*5158025000	PCB Assy, SW	
	*5157025000	PCB, SW	Part of 3 - 15
3 - 16	*5551042000	Shassis, Front	
3 - 17	*5552446000	Chassis, Left Side	
3 - 18	*5555788000	Cover, Transistor	
3 - 19	*5158026000	PCB Assy, VOLUME	
	*5157026000	PCB, VOLUME	Part of 3 - 19
3 - 20	*5555786000	Support, PCB; A	
3 - 21	*5127613000	Lead, Jumper	
3 - 22	*5132048000	Switch, Lever	
3 - 23	*5158027000	PCB Assy, TONE CON AMPL	
	*5157027000	PCB, TONE CON AMPL	Part of 3 - 23
3 - 24	*5158030001	PCB Assy, METER AMPL	
	*5157030001	PCB, METER AMPL	Part of 3 - 24
3 - 25	△ 5134111000	Switch, Power	JAPAN, GENERAL EXPORT
	△ 5134112000	Switch, Power	U.S.A., CANADA
	△ 5134125000	Switch, Power	EUROPE, U.K., AUSTRALIA
3 - 26	*5133015000	Socket, Voltage Selector	GENERAL EXPORT
3 - 27	*5133014000	Plug, Voltage Selector	GENERAL EXPORT
3 - 28	*5503231002	Bracket Assy, Voltage Selector	
	*5553328000	Bracket, Voltage Selector	Part of 3 - 28
3 - 29	*5041227000	Holder, Fuse (w/Cover)	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA
	*5142096000	Holder, Fuse	U.S.A., CANADA
	△ 5142117000	Fuse, 7A 125V	GENERAL EXPORT
	△ 5142215000	Fuse, 7A 125V	JAPAN
	△ 5142215000	Fuse, 7A 125V	EUROPE, U.K., AUSTRALIA
	△ 5142191000	Fuse, 3.15AT 250V	EUROPE, U.K., AUSTRALIA
3 - 30	*5720003800	Seal, Fuse Capacity 3.15AT 250V	JAPAN, U.S.A., CANADA, GENERAL EXPORT
	*5720003900	Seal, Fuse Capacity 7A 125V	EUROPE, U.K., AUSTRALIA
3 - 31	△ 5152222000	Transformer, Power	JAPAN, U.S.A., CANADA
	△ 5152223000	Transformer, Power	EUROPE, U.K., AUSTRALIA
	△ 5152224000	Transformer, Power	GENERAL EXPORT
3 - 32	*5502255000	Chassis Assy, Bottom	
	*5552447000	Chassis, Bottom	Part of 3 - 32
3 - 33	*5158028000	PCB Assy, TONE CON AMPL	
	*5157028000	PCB, TONE CON AMPL	Part of 3 - 34
	△*5185664000	Resistor, Carbon; R412, R512 10 ohm ½ W	Non Flammable Part of 3 - 34
	*5160050000	Coil, 2 μH	Part of 3 - 34

# BX-500/BX-300

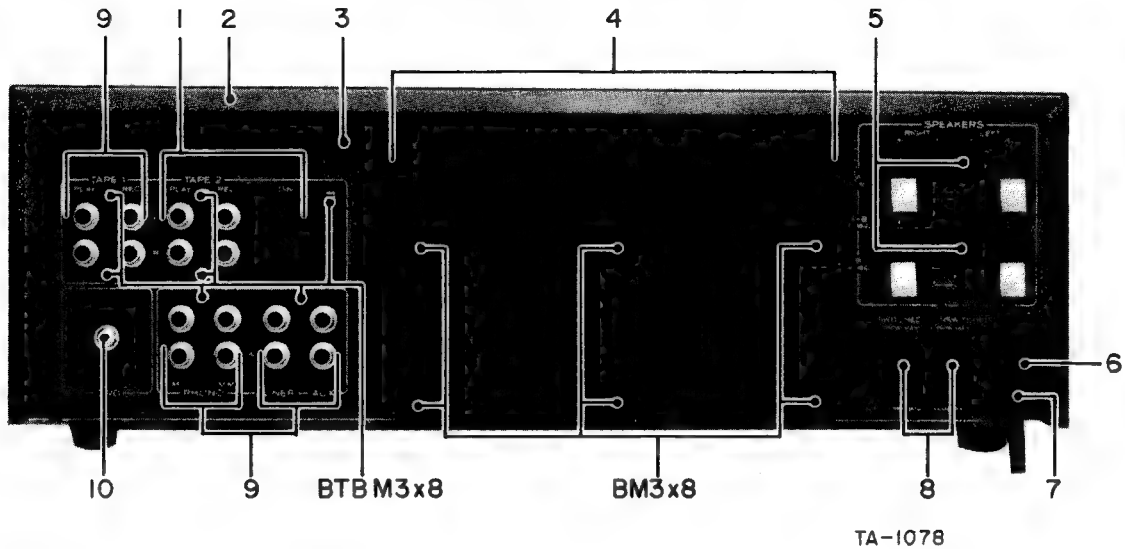
## PARTS LOCATION-4



Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1	*5552446000	Chassis, Left Side	
4 - 2	*5122399000	Terminal, 4P Push	
4 - 3	*5502255000	Chassis Assy, Bottom	
	*5552447000	Chassis, Bottom	Part of 4 - 3
4 - 4	*5555846000	Seat, Insulator	
4 - 5	*5553334000	Support, Transistor	
4 - 6	*5158029000	PCB Assy, MAIN	Part of 4 - 6
	*5157029000	PCB, MAIN	JAPAN, U.S.A., CANADA, GENERAL EXPORT
4 - 7	*5552444000	Panel, Rear	EUROPE, U.K., AUSTRALIA
	*5552445000	Panel, Rear	
4 - 8	*5158024000	PCB Assy, IN/OUTPUT	Part of 4 - 8
	*5157024000	PCB, IN/OUTPUT	
4 - 9	*5127616000	Lead, Jumper	
4 - 10	5138016000	Switch, Slide	
4 - 11	*5138017000	Switch, Wire	
4 - 12	*5553329000	Chassis, Right Side	
4 - 13	*5138014000	Switch, Operation	
4 - 14	△*5052909000	Spark Killer, 0.1 mfd + 120 ohm 300 V	JAPAN
	△*5171606000	Spark Killer, 0.01 mfd 125 V	U.S.A.
	△*5052916000	Spark Killer, 0.01 mfd 125 V	CANADA
	△*5052913000	Spark Killer, 0.1 mfd + 120 ohm 300V	GENERAL EXPORT
	△*5052917000	Spark Killer, 0.01 mfd 450 V	EUROPE, U.K., AUSTRALIA

## PARTS LOCATION-5



Parts marked with \*require longer delivery time than regular parts.

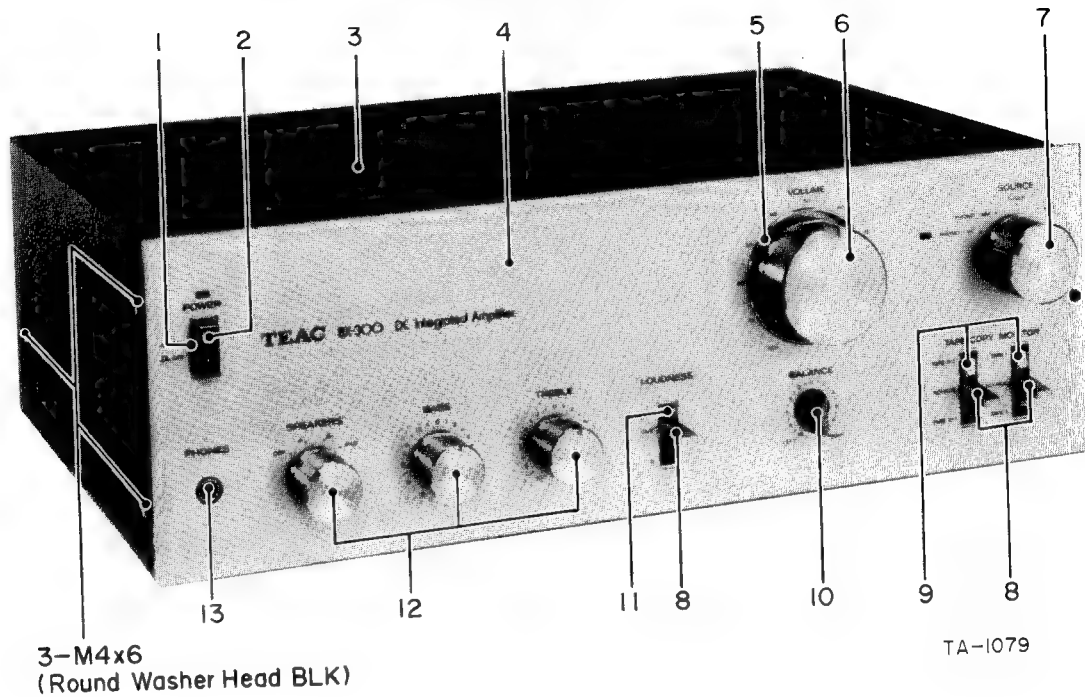
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5 - 1	*5128102000	Pin Jack, 4P (w/DIN)	
5 - 2	*5552438000	Cover, Top	
5 - 3	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA, GENERAL EXPORT
	*5552445000	Panel, Rear	EUROPE, U.K., AUSTRALIA
5 - 4	*5553331000	Heat Sink	
5 - 5	5122399000	Terminal, 4P Push	
5 - 6	*5534661000	Strain Relief, AC Power Cord	U.K.
	*5534663000	Strain Relief, AC Power Cord	AUSTRALIA
	*5534660000	Strain Relief, AC Power Cord	All except U.K., AUSTRALIA
5 - 7	△ 5128034000	Cord, AC Power	JAPAN, GENERAL EXPORT
	△ 5128075000	Cord, AC Power	U.S.A., CANADA
	△*5128018000	Cord, AC Power	EUROPE
	△*5128094000	Cord, AC Power	EUROPE
	△*5128047000	Cord, AC Power	U.K.
	△*5128031000	Cord, AC Power	AUSTRALIA
5 - 8	△ 5122397000	Socket, AC Outlet	JAPAN, U.S.A., CANADA, GENERAL EXPORT
5 - 9	*5128103000	Pin Jack, 4P	
5 - 10	*5045407100	Terminal, GND	

# BX-500/BX-300

## 6 PARTS LOCATION AND PARTS LIST (BX-300)

NOTE: BX-300B on parts list shows black type of front panel.

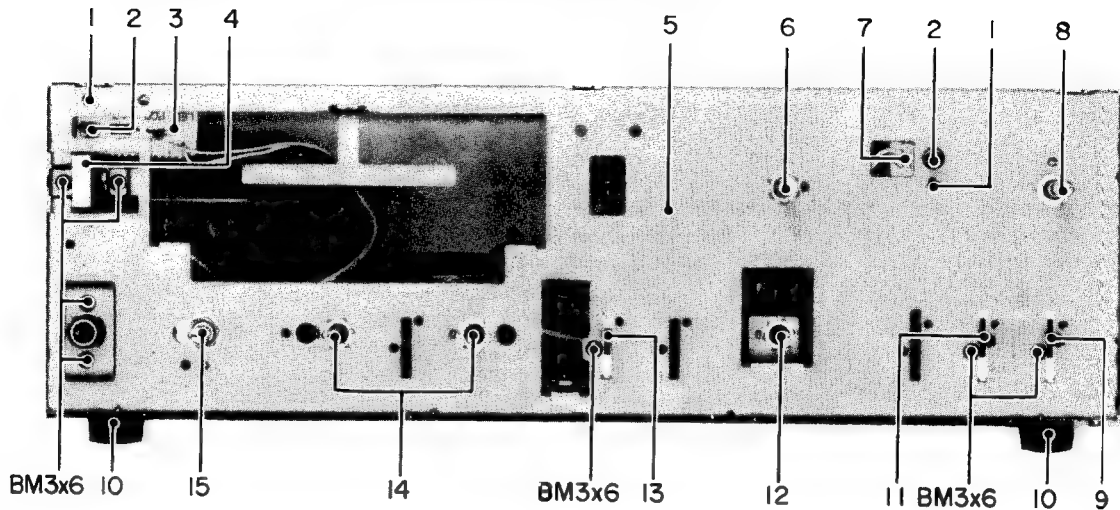
### PARTS LOCATION-1



Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*5534772000	Escutcheon, Power Switch	(BX-300B)
	*5800004800	Escutcheon, Power Switch	
1 - 2	5534774000	Button, Power Switch	(BX-300B)
	5800004600	Button, Power Switch	
1 - 3	*5552438000	Cover, Top	
1 - 4	*5502251000	Panel Assy, Front	(BX-300B)
	*5800006500	Panel Assy, Front	
1 - 5	*5553327000	Escutcheon, Volume	(BX-300B)
	*5800007100	Escutcheon, Volume	
1 - 6	5555784000	Knob, VOLUME	(BX-300B)
	5800007000	Knob, VOLUME	
1 - 7	5534729000	Knob, SOURCE	(BX-300B)
	5800007300	Knob, SOURCE	
1 - 8	5534779000	Knob, Lever	(BX-300B)
	5800007600	Knob, Lever	
1 - 9	*5534781000	Escutcheon, Lever (3P)	(BX-300B)
	*5800007500	Escutcheon, Lever (3P)	
1 - 10	5555781000	Knob, BALANCE	(BX-300B)
	5800004400	Knob, BALANCE	
1 - 11	*5534780000	Escutcheon, Lever (2P)	(BX-300B)
	*5800007400	Escutcheon, Lever (2P)	
1 - 12	5555785000	Knob, SPEAKERS · BASS · TREBLE	(BX-300B)
	5800007200	Knob, SPEAKERS · BASS · TREBLE	
1 - 13	5124022000	Jack, Phones	

## PARTS LOCATION-2

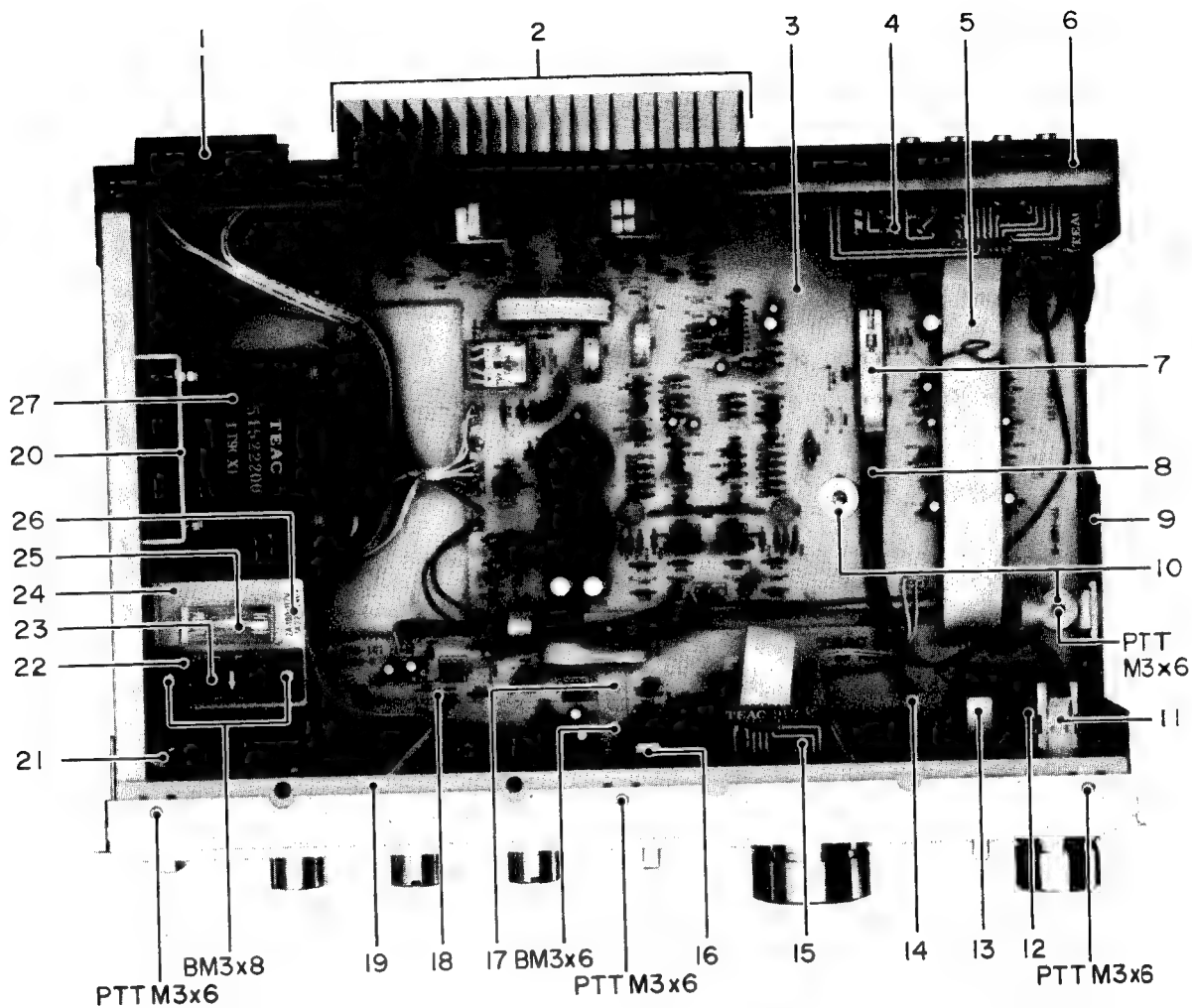


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Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	*5534118000	Rivet, Push	
2 - 2	5143139000	LED, (Green) SLB-26GG1	Part of 2 - 3, 2 - 7
2 - 3	*5158021000	PCB Assy, LED	
	*5157021000	PCB, LED	Part of 2 - 3
	*5180080000	Resistor, Carbon; 820 ohm ¼ W	Part of 2 - 3
	*5143148000	Diode, D903 1S2471HJ	Part of 2 - 3
2 - 4	△ 5134111000	Switch, Power	JAPAN, GENERAL EXPORT
	△ 5134112000	Switch, Power	U.S.A., CANADA
	△ 5134125000	Switch, Power	EUROPE, U.K., AUSTRALIA
2 - 5	*5551042000	Shassis, Front	
2 - 6	5150250000	Resistor, Variable 100 k ohm-B x 2	Part of 3 - 15
2 - 7	*5158031000	PCB Assy, LED	
	*5157031000	PCB, LED	Part of 2 - 7
2 - 8	*5138014000	Switch, Operation	
2 - 9	*5132055000	Switch, Lever	
2 - 10	*5534432000	Foot	
2 - 11	*5132054000	Switch, Lever	
2 - 12	5150249000	Resistor, Variable 300 k ohm	
2 - 13	*5132051000	Switch, Lever	
2 - 14	5150251000	Resistor, Variable 50 k ohm-B x 2	
2 - 15	5133016000	Switch, Rotary	

**PARTS LOCATION-3**



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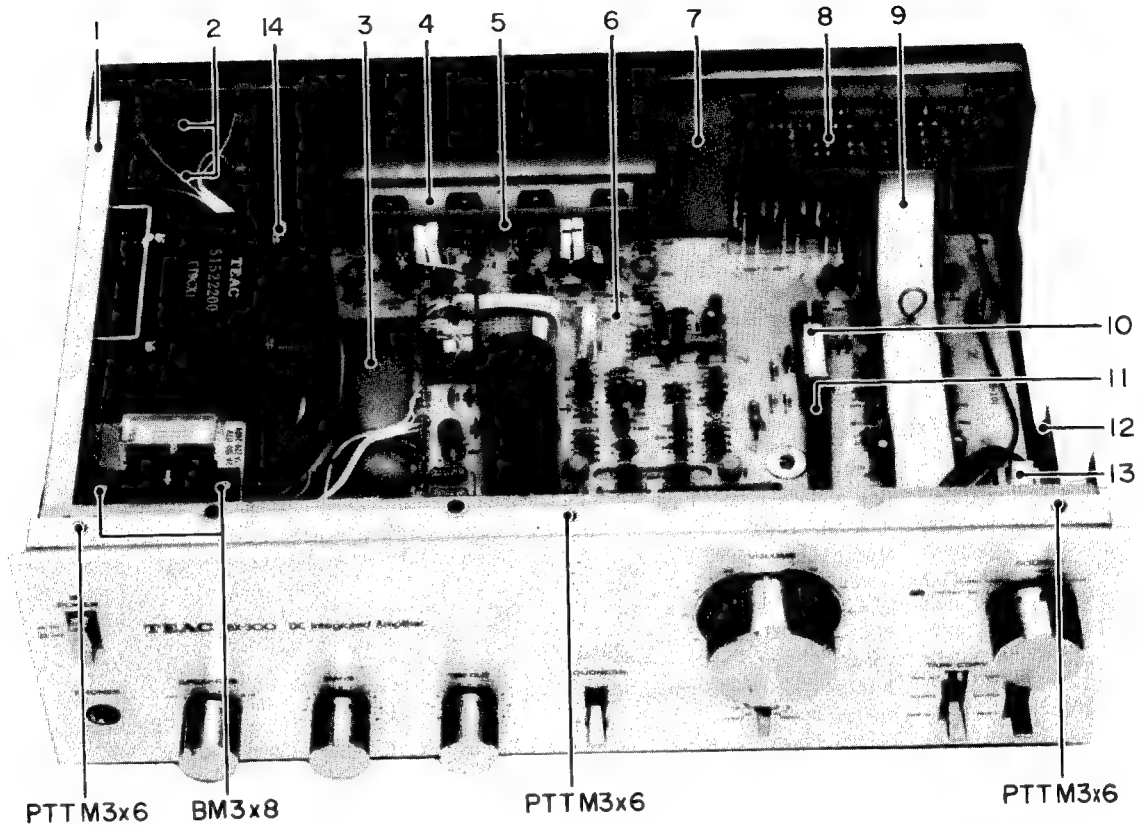


Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	*5122399000	Terminal, 4P Push	
3 - 2	*5553330000	Heat Sink	
3 - 3	*5158020000	PCB Assy, MAIN	
	*5157020000	PCB, MAIN	Part of 3 - 3
3 - 4	*5158016000	PCB Assy, IN/OUTPUT	
	*5157016000	PCB, IN/OUTPUT	Part of 3 - 4
3 - 5	*5127616000	Lead, Jumper	
3 - 6	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA
	*5552445000	Panel, Rear	
3 - 7	*5138016000	Switch, Slide	
3 - 8	*5138017000	Switch, Wire	
3 - 9	*5553329000	Chassis, Right Side	
3 - 10	*5580007000	Washer	
3 - 11	*5138014000	Switch, Operation	
3 - 12	5132055000	Switch, Lever	
3 - 13	5132054000	Switch, Lever	
3 - 14	*5158017000	PCB Assy, SW	
	*5157017000	PCB, SW	Part of 3 - 14
3 - 15	*5158018000	PCB Assy, VOLUME	
	*5157018000	PCB, VOLUME	Part of 3 - 15
3 - 16	5132051000	Switch, Lever	
3 - 17	*5555786000	Support, PCB; A	
3 - 18	*5158019000	PCB Assy, TON CONE AMPL	
	*5157019000	PCB, TON CONE AMPL	Part of 3 - 18
3 - 19	*5551042000	Chassis, Front	
3 - 20	*5553332000	Bracket, Transformer Mounting	
3 - 21	△ 5134111000	Switch, Power	JAPAN, GENERAL EXPORT U.S.A., CANADA
	△ 5134112000	Switch, Power	EUROPE, U.K., AUSTRALIA
	△ 5134125000	Switch, Power	GENERAL EXPORT
3 - 22	*5133015000	Socket, Voltage Selector	GENERAL EXPORT
3 - 23	*5133014000	Plug, Voltage Selector	GENERAL EXPORT
3 - 24	*5503231000	Bracket Assy, Voltage Selector	
	*5553328001	Bracket, Voltage Selector	Part of 3 - 24
3 - 25	*5041227000	Holder, Fuse (w/Cover)	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA
	*5142096000	Holder, Fuse	
	△ 5041144000	Fuse, 2 A 250 V	U.S.A., CANADA
	△ 5041101000	Fuse, 1 A 250 V	GENERAL EXPORT
	△ 5041114000	Fuse, 2 A 250 V	GENERAL EXPORT
	△ 5041141000	Fuse, 1 A 250 V	EUROPE, U.K., AUSTRALIA
3 - 26	*5564127000	Seal, Fuse Capacity 1 A 250 V	EUROPE, U.K., AUSTRALIA
	*5560047000	Seal, Fuse Capacity 2 A 250 V	JAPAN, U.S.A.
	*5564722000	Seal, Fuse Capacity 2 A 250 V	JAPAN, U.S.A., CANADA
	*5564677000	Seal, Fuse Capacity 2 A 100-117 V, 1 A 220-240 V	GENERAL EXPORT
3 - 27	△ 5152219000	Transformer, Power	EUROPE, U.K., AUSTRALIA
	△ 5152220000	Transformer, Power	GENERAL EXPORT
	△ 5152221000	Transformer, Power	JAPAN, U.S.A., CANADA

# BX-500/BX-300

## PARTS LOCATION-4

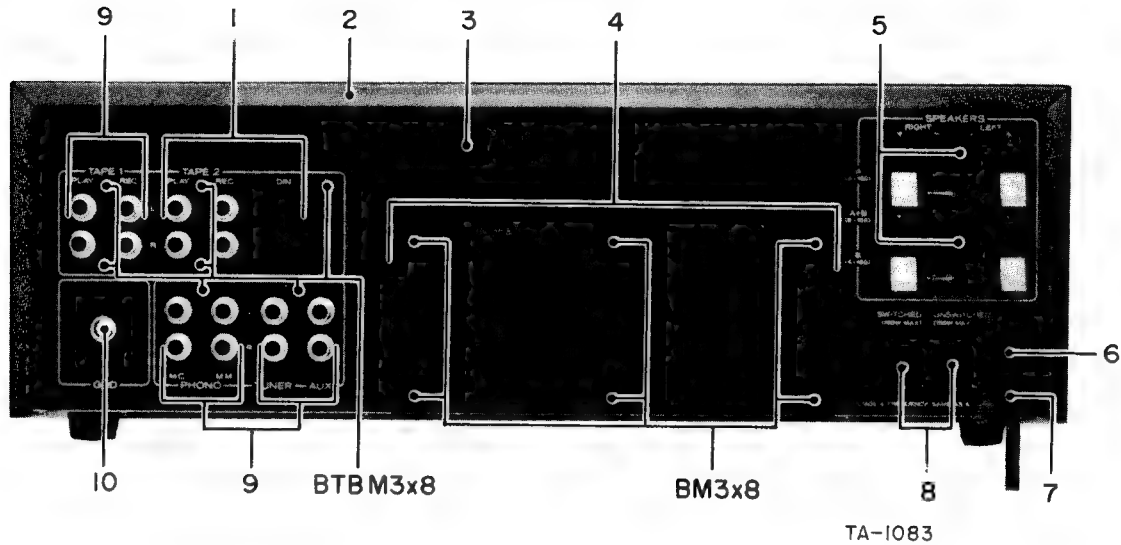


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Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1	*5552446000	Chassis, Left Side	
4 - 2	*5122399000	Terminal, 4P Push	
4 - 3	*5502255000	Chassis Assy, Bottom	Part of 4 - 3
	*5552447000	Chassis, Bottom	
4 - 4	*5555846000	Seat, Insulator	
4 - 5	*5553334000	Support, Transistor	
4 - 6	*5158020000	PCB Assy, MAIN	Part of 4 - 6
	*5157020000	PCB, MAIN	JAPAN, U.S.A., CANADA, GENERAL EXPORT
4 - 7	*5552444000	Panel, Rear	EUROPE, U.K., AUSTRALIA
	*5552445000	Panel, Rear	
4 - 8	*5158016000	PCB Assy, IN/OUTPUT	Part of 4 - 8
	*5157016000	PCB, IN/OUTPUT	
4 - 9	*5127616000	Lead, Jumper	
4 - 10	5138016000	Switch, Slide	
4 - 11	*5138017000	Switch, Wire	
4 - 12	*5553329000	Chassis, Right Side	
4 - 13	5138014000	Switch, Operation	
4 - 14	Δ*5052909000	Spark Killer, 0.1 mfd + 120 ohm 300 V	JAPAN
	Δ*5171606000	Spark Killer, 0.01 mfd 125 V	U.S.A.
	Δ*5052916000	Spark Killer, 0.01 mfd 125 V	CANADA
	Δ*5052913000	Spark Killer, 0.1 mfd + 120 ohm 300 V	GENERAL EXPORT
	Δ*5052917000	Spark Killer, 0.01 mfd 450 V	EUROPE, U.K., AUSTRALIA

## PARTS LOCATION-5



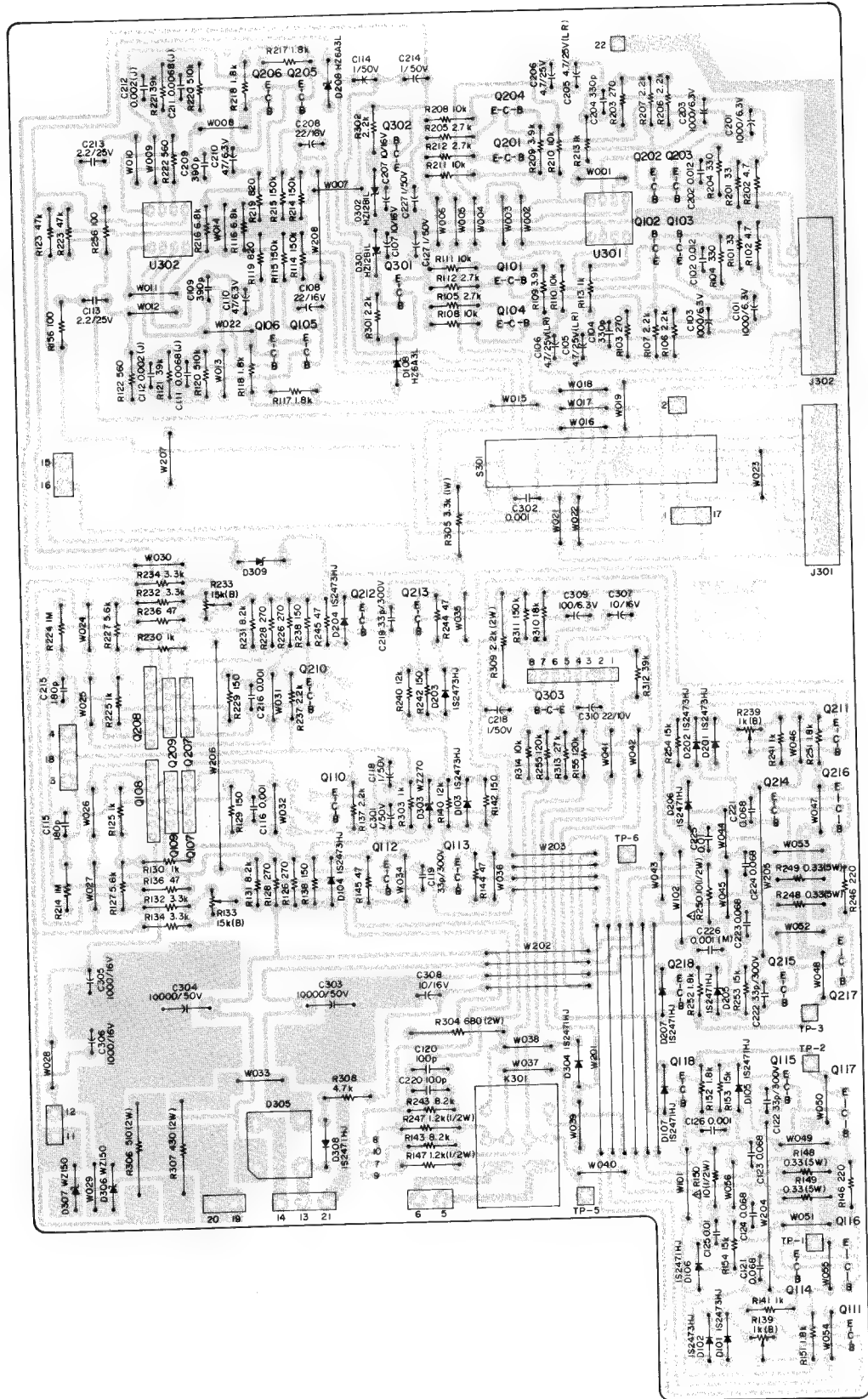
Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5 - 1	*5128102000	Pin Jack, 4P (w/DIN)	
5 - 2	*5552438000	Cover, Top	
5 - 3	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA, GENERAL EXPORT
	*5552445000	Panel, Rear	EUROPE, U.K., AUSTRALIA
5 - 4	*5553330000	Heat Sink	
5 - 5	5122399000	Terminal, 4P Push	
5 - 6	*5534661000	Strain Relief, AC Power Cord	U.K.
	*5534663000	Strain Relief, AC Power Cord	AUSTRALIA
	*5534660000	Strain Relief, AC Power Cord	All except U.K., AUSTRALIA
5 - 7	△ 5128034000	Cord, AC Power	JAPAN, GENERAL EXPORT
	△ 5128075000	Cord, AC Power	U.S.A., CANADA
	△ *5128018000	Cord, AC Power	EUROPE
	△ *5128094000	Cord, AC Power	EUROPE
	△ *5128047000	Cord, AC Power	U.K.
	△ *5128031000	Cord, AC Power	AUSTRALIA
5 - 8	△ 5122397000	Socket, AC Outlet	JAPAN, U.S.A., CANADA, GENERAL EXPORT
5 - 9	*5128103000	Pin Jack, 4P	
5 - 10	*5045407100	Terminal, GND	

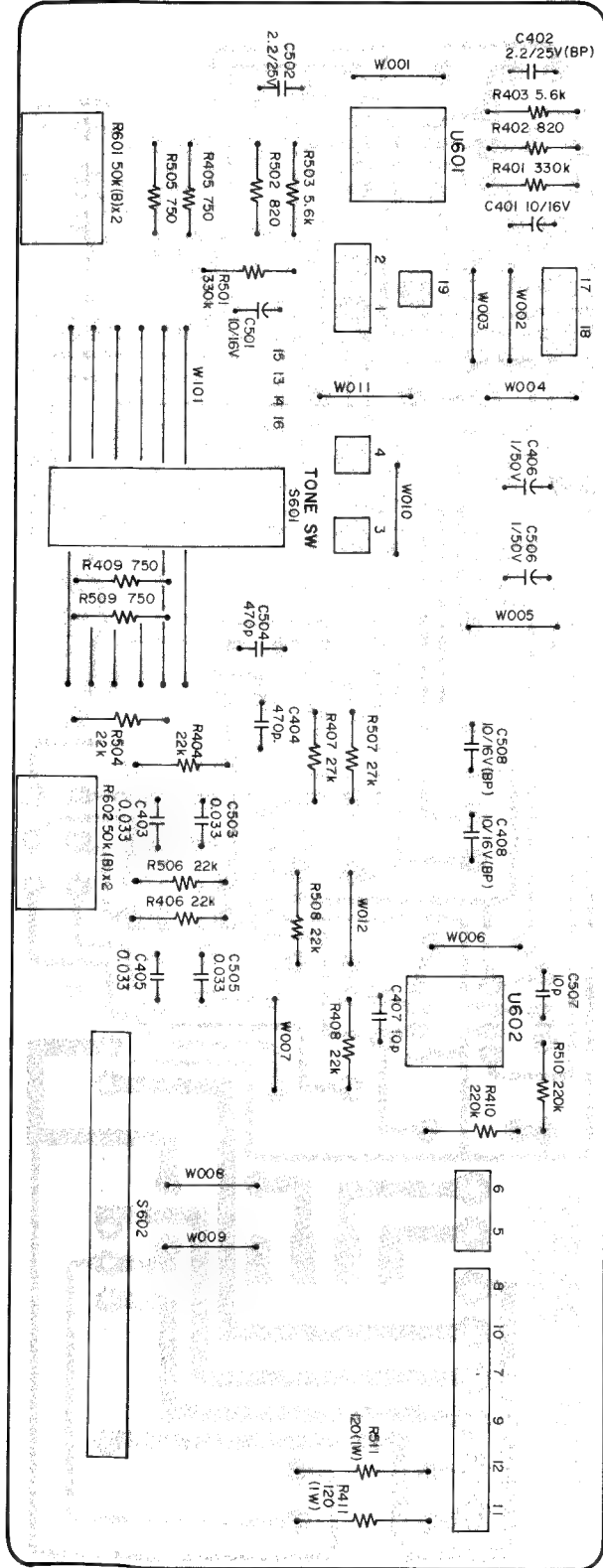
## 7 PC BOARDS AND PARTS LIST (BX-500)

PC Boards shown viewed from foil side.

### MAIN PCB ASSY

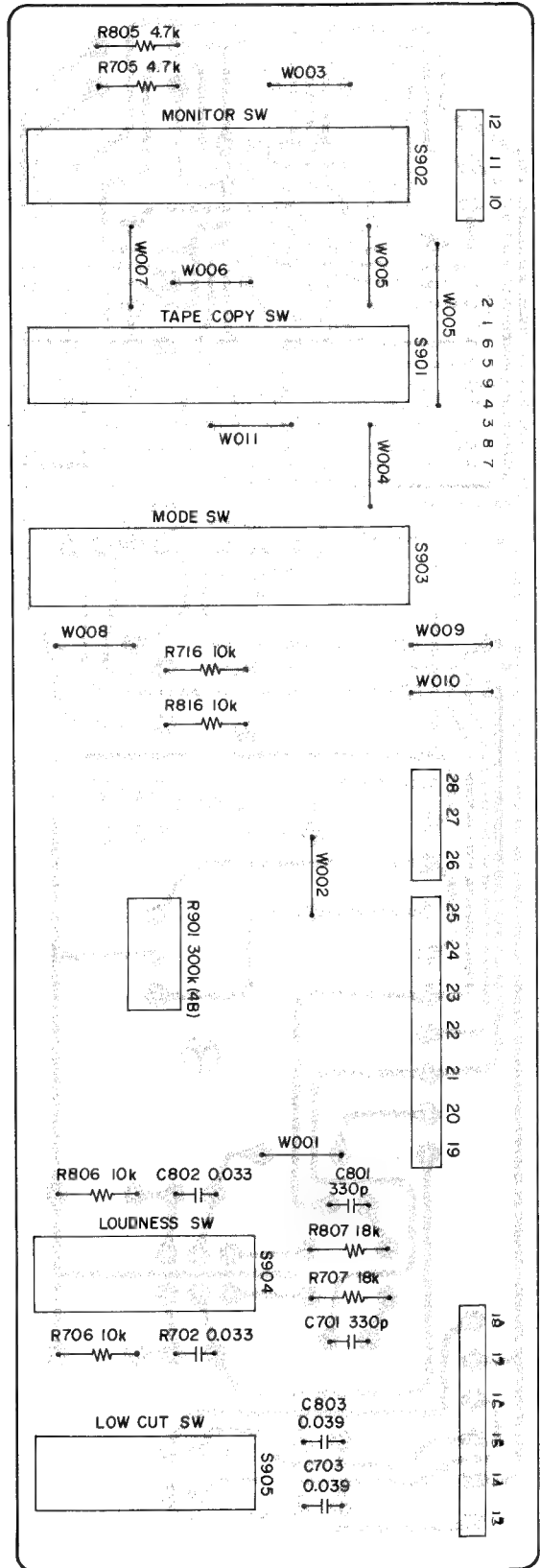


**TONE CON AMPL PCB ASSY**



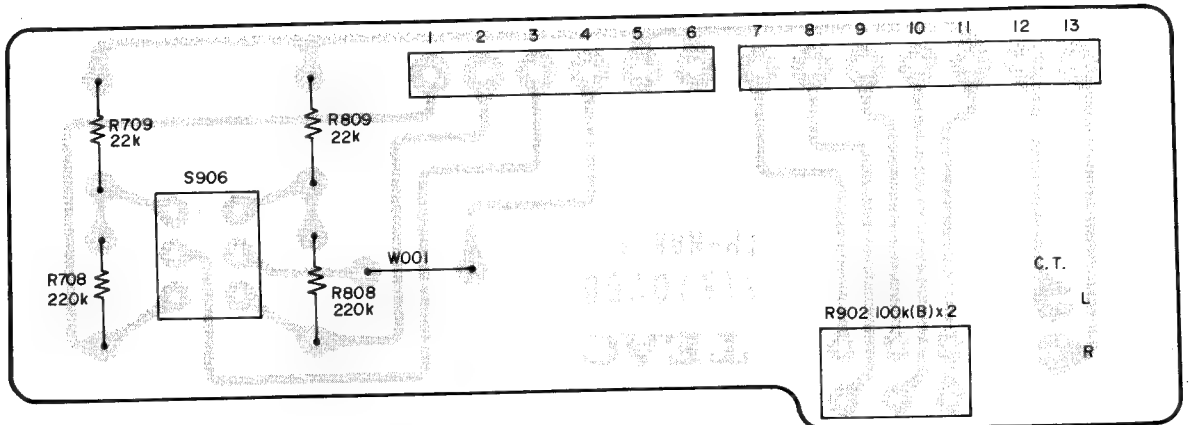
P-1014

**SW PCB ASSY**



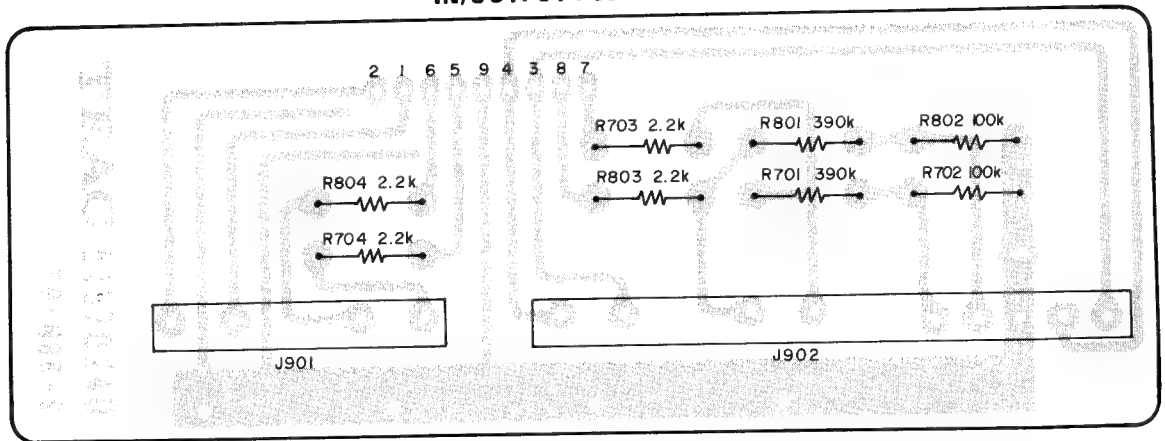
P-1015

## VOLUME PCB ASSY



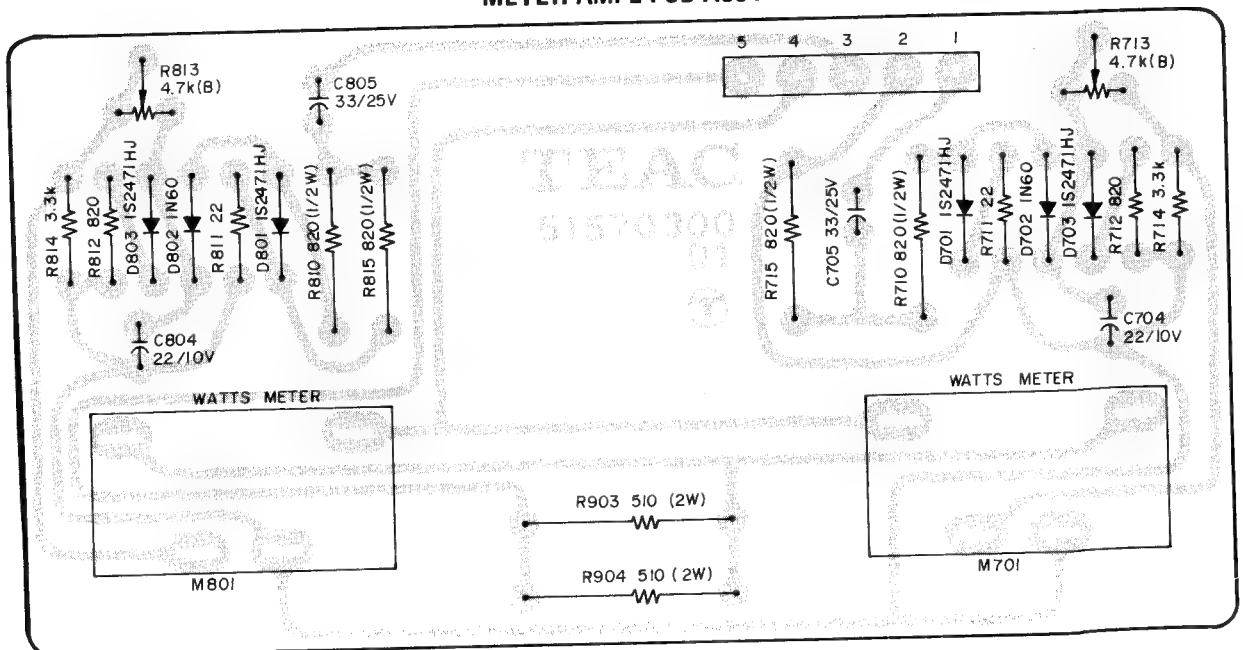
P-1016

## IN/OUTPUT PCB ASSY



P-1017

## METER AMPL PCB ASSY



P-1018

## MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158029000	PCB Assy
	5157029000	PCB
	<b>IC's</b>	
U301, U302	5147064000	NJM4559DD
U303	5147065000	HA12002
	<b>TRANSISTORS</b>	
Q101, Q201	5145150000	2SA1015(GR)
Q102, Q202	5145163000	2SB737(S)
Q103, Q203	5145164000	2SD786(S)
Q104, Q204	5145151000	2SC1815(GR)
Q105, Q205	5145153000	2SC2240(GR)
Q106, Q206	5145153000	2SC2240(GR)
Q107, Q207	5145155000	2SA995(F)
Q108, Q208	5145156000	2SK109(C)
Q109, Q209	5145154000	2SC2259(F)
Q110, Q210	5145149000	2SA970(GR)
Q111, Q211	5145151000	2SC1815(GR)
Q112, Q212	5145166000	2SA949(Y)
Q113, Q213	5145167000	2SC2229(Y)
Q114, Q214	5145169000	2SC2235(Y)
Q115, Q215	5145168000	2SA965(Y)
Q116, Q216	5145171000	2SD718(O)
Q117, Q217	5145170000	2SB688(O)
Q118, Q218	5145153000	2SC2240(GR)
Q301	5145151000	2SC1815(GR)
Q302, Q303	5145150000	2SA1015(GR)
	<b>DIODES</b>	
D101 ~ D104	5143118000	1S2473HJ
D105 ~ D107	5143148000	1S2471HJ
D201 ~ D204	5143118000	1S2473HJ
D205 ~ D207	5143148000	1S2471HJ
D108, D208	5143144000	HZ6A3L
D301, D302	5143311000	HZ12B1L
D303	5143300000	WZ270
D304	5143148000	1S2471HJ
D305	5143309000	3D4B41
D306, D307	5143285000	WZ150
D308	5143148000	1S2473HJ
D309	5143278000	WZ100
	<b>RESISTORS</b>	
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type unless otherwise noted.		
R101, R201	5181446000	33 ohm
R102, R202	5181426000	4.7 ohm
R103, R203	5181468000	270 ohm
R104, R204	5181470000	330 ohm
R105, R205	5181492000	2.7 k ohm
R106, R206	5181490000	2.2 k ohm
R107, R207	5181490000	2.2 k ohm
R108, R208	5181506000	10 k ohm
R109, R209	5181496000	3.9 k ohm
R110, R210	5181506000	10 k ohm
R111, R211	5181506000	10 k ohm
R112, R212	5181492000	2.7 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R113, R213	5181482000	1 k ohm
R114, R214	5181534000	150 k ohm
R115, R215	5181534000	150 k ohm
R116, R216	5181502000	6.8 k ohm
R117, R217	5181488000	1.8 k ohm
R118, R218	5181488000	1.8 k ohm
R119, R219	5181480000	820 ohm
R120, R220	5181547000	510 k ohm
R121, R221	5181520000	39 k ohm
R122, R222	5181276000	560 ohm
R123, R223	5181522000	47 k ohm
R124, R224	5181554000	1 M ohm
R125, R225	5181482000	1 k ohm
R126, R226	5181468000	270 ohm
R127, R227	5181500000	5.6 k ohm
R128, R228	5181468000	270 ohm
R129, R229	5181462000	150 ohm
R130, R230	5181482000	1 k ohm
R131, R231	5181504000	8.2 k ohm
R132, R232	5181494000	3.3 k ohm
R133, R233	5181494000	3.3 k ohm
R134, R234	5181494000	3.3 k ohm
R136, R236	5181450000	47 ohm
R137, R237	5181490000	2.2 k ohm
R138, R238	5181462000	150 ohm
R140, R240	5181508000	12 k ohm
R141, R241	5181482000	1 k ohm
R142, R242	5181462000	150 ohm
R143, R243	5185544000	8.2 k ohm Metal Film
R144, R244	5181450000	47 ohm
R145, R245	5181450000	47 ohm
R146, R246	5181466000	220 ohm
R147, R247	5185354000	1.2 k ohm $\frac{1}{2}W$ Metal Film
R148, R248	$\Delta$ 5185201000	0.33 ohm Metal Plate Non Flammable
R149, R249	$\Delta$ 5185201000	0.33 ohm Metal Plate Non Flammable
R150, R250	$\Delta$ 5185664000	10 ohm $\frac{1}{2}W$ Non Flammable
R151, R251	5181488000	1.8 k ohm
R152, R252	5181488000	1.8 k ohm
R153, R253	5181510000	15 k ohm
R154, R254	5181510000	15 k ohm
R155, R255	5181532000	120 k ohm
R156, R256	5181458000	100 ohm
R301	5181490000	2.2 k ohm
R302	5181490000	2.2 k ohm
R303	5181482000	1 k ohm
R304	5184811000	680 ohm 2W Metal Film
R305	5185802000	3.3 k ohm 1W Metal Film
R306	$\Delta$ 5184808000	510 ohm 2W Metal Film Non Flammable
R307	$\Delta$ 5184806000	430 ohm 2W Metal Film Non Flammable
R308	5181498000	4.7 k ohm
R309	5185616000	2.2 k ohm 2W Metal Film
R310	5181512000	18 k ohm
R311	5181534000	150 k ohm
R312	5181520000	39 k ohm
R313	5181516000	27 k ohm
R314	5181506000	10 k ohm

# BX-500/BX-300

REF. NO.	PARTS NO.	DESCRIPTION
<b>CAPACITORS</b>		
C101, C201	5172968000	Elec. 1000 mfd 6.3V
C102, C202	5171882000	Mylar 0.012 mfd
C103, C203	5172968000	Elec. 1000 mfd 6.3V
C104, C204	5172612000	Polyst. 330 pfd
C105, C205	5171563000	Elec. 4.7 mfd 25V (LR)
C106, C206	5171563000	Elec. 4.7 mfd 25V (LR)
C107, C207	5173140000	Elec. 10 mfd 16V
C108, C208	5173156000	Elec. 22 mfd 16V
C109, C209	5172614000	Polyst. 390 pfd
C110, C210	5173178000	Elec. 47 mfd 6.3V
C111, C211	5170372000	Mylar 0.0068 mfd
C112, C212	5170359000	Mylar 0.002 mfd
C113, C213	5171402000	Elec. 2.2 mfd 25V (BP)
C114, C214	5173104000	Elec. 1 mfd 50V
C115, C215	5172606000	Polyst. 180 pfd
C116, C216	5170376000	Mylar 0.001 mfd
C118, C218	5173104000	Elec. 1 mfd 50V
C119, C219	5173219500	Dip. Mica 33 pfd 300V
C120, C220	5054744000	Dip. Mica 100 pfd
C121, C221	5171900000	Mylar 0.068 mfd
C122, C222	5173219500	Dip. Mica 33 pfd 300V
C123, C223	5171900000	Mylar 0.068 mfd
C124, C224	5171900000	Mylar 0.068 mfd
C125, C225	5171880000	Mylar 0.01 mfd
C126, C226	5170376000	Mylar 0.001 mfd
C127, C227	5173104000	Elec. 1 mfd 50V
C301	5173104000	Elec. 1 mfd 50V
C302	5170376000	Mylar 0.001 mfd
C303, C304	5171611000	Elec. 10000 mfd 50V
C305, C306	5172970000	Elec. 1000 mfd 16V
C307, C308	5173140000	Elec. 10 mfd 16V
C309	5173190000	Elec. 100 mfd 6.3V
C310	5173154000	Elec. 22 mfd 10V

### VARIABLE RESISTORS

R133, R233	5053354000	Semi-fixed 15 k ohm
R139, R239	5053350000	Semi-fixed 1 k ohm

### MISCELLANEOUS

K301	5061151000	Relay, Power
J301, J302	5128103000	Pin Jack, 4P
	5555788000	Cover, Transistor
S301	5138014000	Switch, Operation
S301	5138017000	Switch, Wire
S301	5138016000	Switch, Slide
	5122423000	Lapping Terminal WD-1
	5122424000	Lapping Terminal WD-2
	5122475000	Lapping Terminal WF-3
	5122474000	Lapping Terminal WF-2
	5122485000	Lapping Terminal WF-1

## TONE CON AMPL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158027000	PCB Assy
	5157027000	PCB
		IC's
U601, U602	5147064000	NJM4559DD
<b>RESISTORS</b>		
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type unless otherwise noted.		
R401, R501	5181542000	330 k ohm
R402, R502	5181480000	820 ohm
R403, R503	5181500000	5.6 k ohm
R404, R504	5181514000	22 k ohm
R405, R505	5181479000	750 ohm
R406, R506	5181514000	22 k ohm
R407, R507	5181516000	27 k ohm
R408, R508	5181514000	22 k ohm
R409, R509	5181479000	750 ohm
R410, R510	5181538000	220 k ohm
R411, R511	5184757000	120 ohm 1W Metal Film
<b>CAPACITORS</b>		
C401, C501	5173140000	Elec. 10 mfd 16V
C402, C502	5171402000	Elec. 2.2 mfd 25V (BP)
C403, C503	5171892000	Mylar 0.033 mfd
C404, C504	5172616000	Polyst. 470 pfd
C405, C505	5171892000	Mylar 0.033 mfd
C406, C506	5173104000	Elec. 1 mfd 50V
C407, C507	5054740000	Dip. Mica 10 pfd
C408, C508	5171412000	Elec. 10 mfd 16V (BP)
<b>MISCELLANEOUS</b>		
R601, R602	5150251000	Resistor, Variable 50 k ohm-B x 2
S601	5132048000	Switch, Lever
S602	5133016000	Switch, Rotary
	5122423000	Lapping Terminal WD-1
	5122424000	Lapping Terminal WD-2
	5122428000	Lapping Terminal WD-6



## SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158025000	PCB Assy
	5157025000	PCB
<b>RESISTORS</b>		
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type.		
R705, R805	5181298000	4.7 k ohm
R706, R806	5181306000	10 k ohm
R707, R807	5181312000	18 k ohm
R716, R816	5181306000	10 k ohm
<b>CAPACITORS</b>		
C701, C801	5172492000	Polyst. 330 pfd
C702, C802	5054824000	Mylar 0.033 mfd
C703, C803	5054863000	Mylar 0.039 mfd
<b>MISCELLANEOUS</b>		
R901	5150249000	Resistor, Variable 300 k ohm
S901	5132054000	Switch, Lever
S902	5132055000	Switch, Lever
S903	5132050000	Switch, Lever
S904, S905	5132051000	Switch, Lever
	5122425000	Lapping Terminal WD-3
	5122428000	Lapping Terminal WD-6
	5122429000	Lapping Terminal WD-7

## VOLUME PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158026000	PCB Assy
	5157026000	PCB
<b>RESISTORS</b>		
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type.		
R708, R808	5181538000	220 k ohm
R709, R809	5181514000	22 k ohm
<b>MISCELLANEOUS</b>		
R902	5150250000	Resistor, Variable 100 k ohm-B
S906	5134113000	Switch, Push
	5122441000	Lapping Terminal WU-6
	5122440000	Lapping Terminal WU-7

## IN/OUTPUT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158024000	PCB Assy
	5157024000	PCB
<b>RESISTORS</b>		
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type.		
R701, R801	5181544000	390 k ohm
R702, R802	5181530000	100 k ohm
R703, R803	5181490000	2.2 k ohm
R704, R804	5181490000	2.2 k ohm
<b>MISCELLANEOUS</b>		
J901	5128103000	Pin Jack, 4P
J902	5128102000	Pin Jack, 4P (w/DIN)

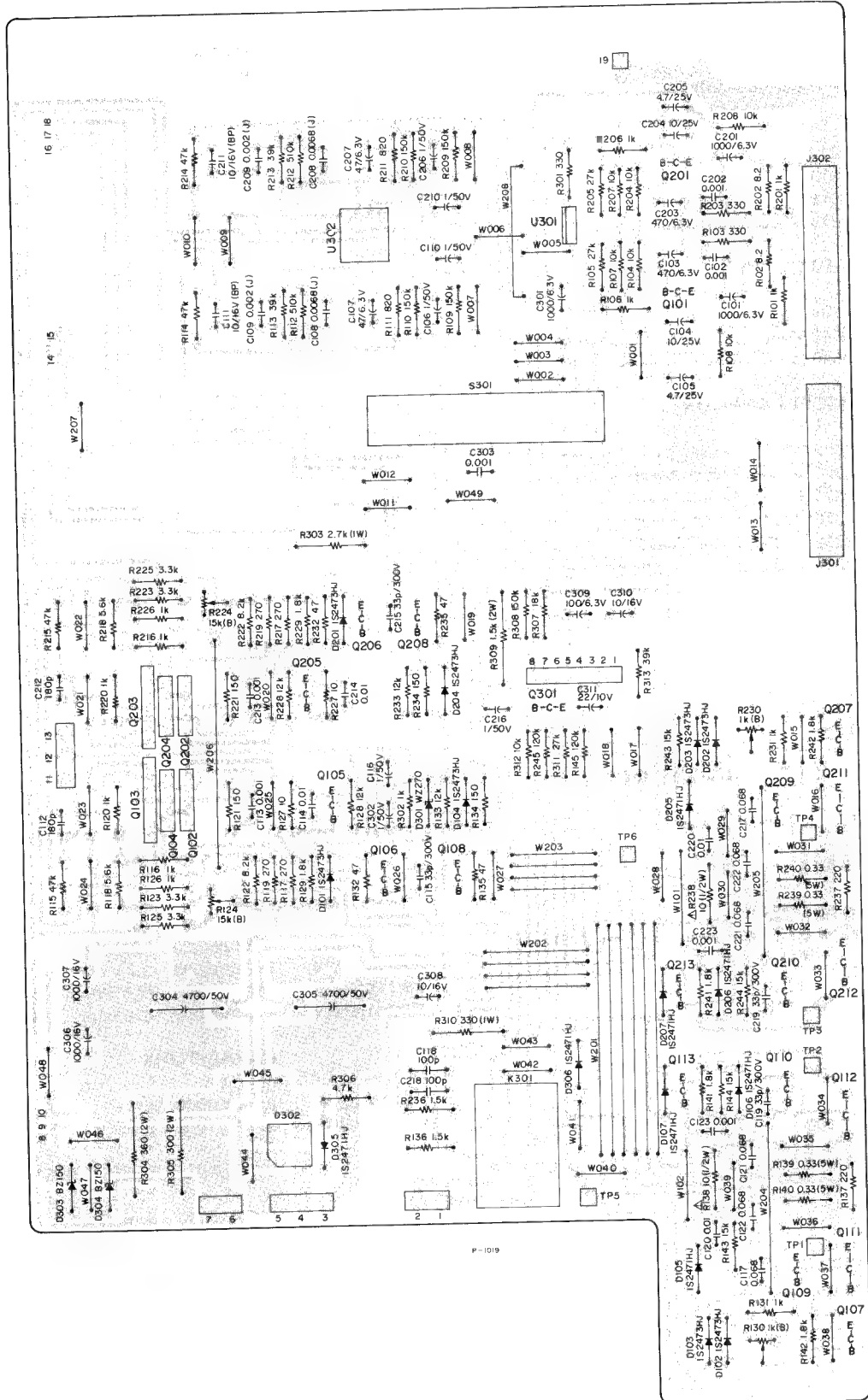
## METER AMPL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158030001	PCB Assy
	5157030001	PCB
<b>DIODES</b>		
D701, D801	5143148000	1S2471HJ
D702, D802	5042213000	1N60
D703, D803	5143148000	1S2471HJ
D704, D705	5042519000	WZ075
<b>RESISTORS</b>		
All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of carbon type.		
R710, R810	5180080000	820 ohm $\frac{1}{4}W$
R711, R811	5181242000	22 ohm
R712, R812	5181280000	820 ohm
R714, R814	5181294000	3.3 k ohm
R715, R815	5180080000	820 ohm $\frac{1}{4}W$
R903, R904	5184808000	510 ohm 2W
<b>CAPACITORS</b>		
C704, C804	5172907000	Elec. 22 mfd 10V
C705, C805	5172917000	Elec. 33 mfd 25V
<b>VARIABLE RESISTORS</b>		
R713, R813	5150127000	Semi-fixed 4.7 k ohm
<b>MISCELLANEOUS</b>		
M701, M801	5165066000	Meter, Power Output
	5296000200	Meter, Power Output (BX-500B)
	5555996000	Meter Scale, Meter
	5122439000	Lapping Terminal WU-5

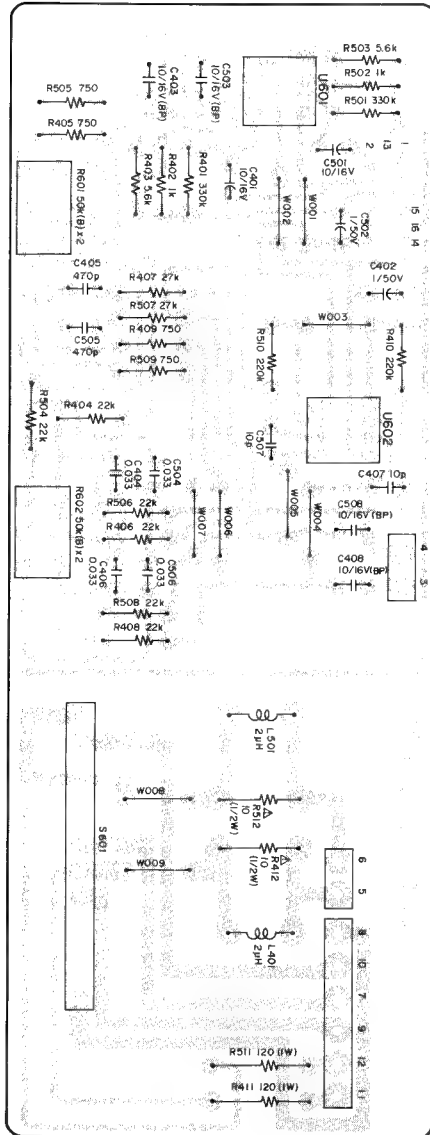
## 8 PC BOARDS AND PARTS LIST (BX-300)

PC Boards shown viewed from foil side.

### MAIN PCB ASSY

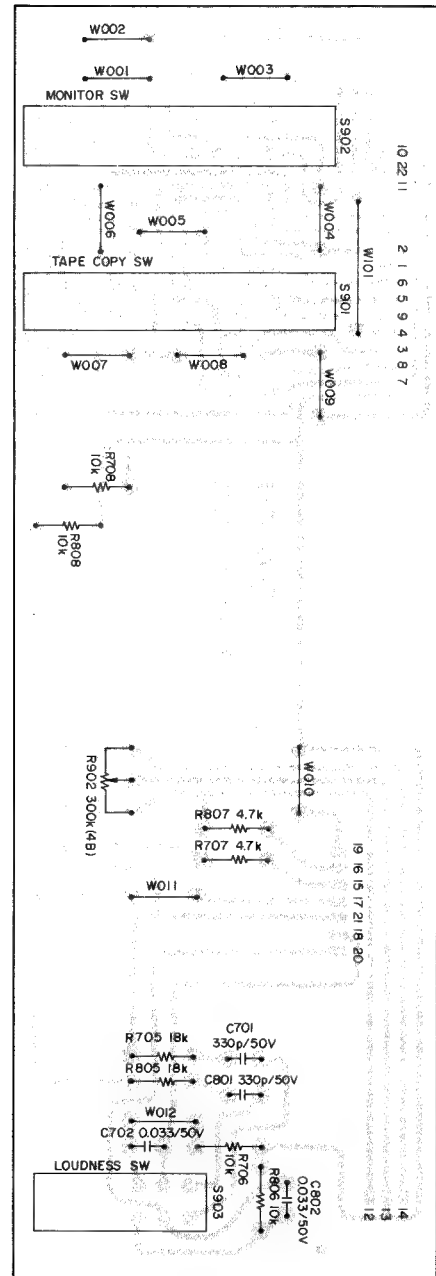


## TONE CON AMPL PCB ASSY



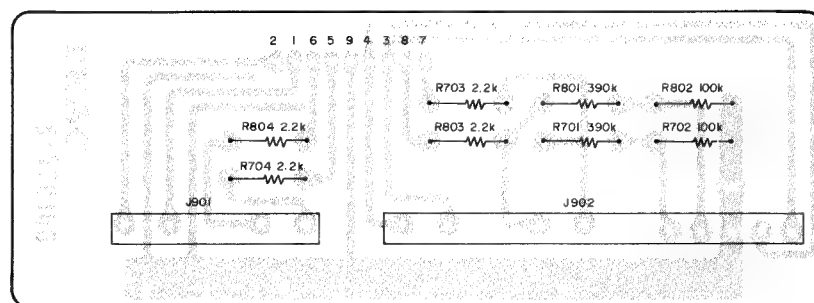
P-1020

## SW PCB ASSY



P-1021

## IN/OUTPUT PCB ASSY



P-1022

# BX-500/BX-300

## MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158020000	Main PCB Assy
	5157020000	Main PCB
	<b>IC's</b>	
U301	5147066000	μPC78L08
U302	5147064000	NJM4559DD
U303	5147065000	HA12002
	<b>TRANSISTORS</b>	
Q101, Q201	5145164000	2SD786(S)
Q102, Q202	5145155000	2SA995(F)
Q103, Q203	5145156000	2SK109(C)
Q104, Q204	5145154000	2SC2259(F)
Q105, Q205	5145149000	2SA970(GR)
Q106, Q206	5145175000	2SB646A(C)
Q107, Q207	5145151000	2SC1815(GR)
Q108, Q208	5145176000	2SD666A(C)
Q109, Q209	5145174000	2SD667A(C)
Q110, Q210	5145173000	2SB647A(C)
Q111, Q211	5145165000	2SD716(O)
Q112, Q212	5145172000	2SB686(O)
Q113, Q213	5145153000	2SC2240(GR)
Q301	5145150000	2SA1015(GR)
	<b>DIODES</b>	
D101 ~ D104	5143118000	1S2473HJ
D105 ~ D107	5143148000	1S2471HJ
D201 ~ D204	5143118000	1S2473HJ
D205 ~ D207	5143148000	1S2471HJ
D301	5143300000	WZ270
D302	5143310000	1D4B1
D303, D304	5143312000	BZ150
D305, D306	5143148000	1S2471HJ
	<b>RESISTORS</b>	
All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.		
R101, R201	5181482000	1 k ohm
R102, R202	5181432000	8.2 ohm
R103, R203	5181470000	330 ohm
R104, R204	5181506000	10 k ohm
R105, R205	5181516000	27 k ohm
R106, R206	5181482000	1 k ohm
R107, R207	5181506000	10 k ohm
R108, R208	5181506000	10 k ohm
R109, R209	5181534000	150 k ohm
R110, R210	5181534000	150 k ohm
R111, R211	5181480000	820 ohm
R112, R212	5181547000	510 k ohm
R113, R213	5181520000	39 k ohm
R114, R214	5181522000	47 k ohm
R115, R215	5181522000	47 k ohm
R116, R216	5181482000	1 k ohm
R117, R217	5181468000	270 ohm
R118, R218	5181500000	5.6 k ohm
R119, R219	5181468000	270 ohm
R120, R220	5181482000	1 k ohm
R121, R221	5181462000	150 ohm

REF. NO.	PARTS NO.	DESCRIPTION
R122, R222	5181504000	8.2 k ohm
R123, R223	5181494000	3.3 k ohm
R125, R225	5181494000	3.3 k ohm
R126, R226	5181456000	82 ohm
R127, R227	5181434000	10 ohm
R128, R228	5181508000	12 k ohm
R129, R229	5181488000	1.8 k ohm
R131, R231	5181482000	1 k ohm
R132, R232	5181450000	47 ohm
R133, R233	5181508000	12 k ohm
R134, R234	5181462000	150 ohm
R135, R235	5181450000	47 ohm
R136, R236	5185526000	1.5 k ohm Metal Film
R137, R237	5181466000	220 ohm
R138, R238	Δ5185664000	10 ohm ½W Non Flammable Metal Film
R139, R239	Δ5185201000	0.33 ohm 5W Non Flammable Metal Film
R140, R240	Δ5185201000	0.33 ohm 5W Non Flammable Metal Film
R141, R241	5181488000	1.8 k ohm
R142, R242	5181488000	1.8 k ohm
R143, R243	5181510000	15 k ohm
R144, R244	5181510000	15 k ohm
R145, R245	5181532000	120 k ohm
R301	5181470000	330 ohm
R302	5181482000	1 k ohm
R303	5185800000	2.7 k ohm 1W Metal Film
R304	Δ5184804000	360 ohm 2W Non Flammable Metal Film
R305	Δ5184802000	300 ohm 2W Non Flammable Metal Film
R306	5181498000	4.7 k ohm
R307	5181512000	18 k ohm
R308	5181534000	150 k ohm
R309	5185612000	1.5 k ohm 2W Metal Film
R310	5184767000	330 ohm 1W Metal Film
R311	5181516000	27 k ohm
R312	5181506000	10 k ohm
R313	5181520000	39 k ohm
	<b>CAPACITORS</b>	
C101, C201	5172968000	Elec. 1000 mfd 6.3V
C102, C202	5170376000	Mylar 0.001 mfd
C103, C203	5172959000	Elec. 470 mfd 6.3V
C104, C204	5173142000	Elec. 10 mfd 25V
C105, C205	5173128000	Elec. 4.7 mfd 25V
C106, C206	5173104000	Elec. 1 mfd 50V
C107, C207	5173178000	Elec. 47 mfd 6.3V
C108, C208	5170372000	Mylar 0.0068 mfd
C109, C209	5170359000	Mylar 0.002 mfd
C110, C210	5173104000	Elec. 1 mfd 50V
C111, C211	5171412000	Elec. 10 mfd 16V (BP)
C112, C212	5172606000	Polyst. 180 pfd
C113, C213	5170376000	Mylar 0.001 mfd
C114, C214	5171880000	Mylar 0.01 mfd
C115, C215	5173219500	Dip. Mica 33 pfd 300V
C116, C216	5173104000	Elec. 1 mfd 50V
C117, C217	5171900000	Mylar 0.068 mfd
C118, C218	5054744000	Dip. Mica 100 pfd
C119, C219	5173219500	Dip. Mica 33 pfd 300V
C120, C220	5171880000	Mylar 0.01 mfd
C121, C221	5171900000	Mylar 0.068 mfd

## TONE CON AMPL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
C122, C222	5171900000	Mylar 0.068 mfd
C123, C223	5170376000	Mylar 0.001 mfd
C301	5172968000	Elec. 1000 mfd 6.3V
C302	5172882000	Elec. 1 mfd 50V
C303	5170376000	Mylar 0.001 mfd
C304, C305	5171464000	Elec. 4700 mfd 50V
C306, C307	5172970000	Elec. 1000 mfd 16V
C308	5173140000	Elec. 10 mfd 16V
C309	5173190000	Elec. 100 mfd 6.3V
C310	5173140000	Elec. 10 mfd 16V
C311	5173154000	Elec. 22 mfd 10V

### VARIABLE RESISTORS

R124, R224	5053354000	Semi-fixed 1.5 k ohm-B
R130, R230	5053350000	Semi-fixed 1 k ohm-B

### MISCELLANEOUS

K301	5061151000	Relay, Power
J301, J302	5128103000	Pin Jack, 4P
S301	5138014000	Switch, Operation
S301	5138017000	Switch, Wire
S301	5138016000	Switch, Slide
	5122423000	Lapping Terminal WD-1
	5122424000	Lapping Terminal WD-2
	5122475000	Lapping Terminal WF-3
	5122474000	Lapping Terminal WF-2
	5122485000	Lapping Terminal WF-1

REF. NO.	PARTS NO.	DESCRIPTION
	5158019000	PCB Assy
	5157019000	PCB
		IC's
U601, U602	5147064000	NJM4559DD

### RESISTORS

All resistors are rated  $\pm 5\%$  tolerance,  $\frac{1}{4}$  watt and of carbon type unless otherwise noted.

R401, R501	5181542000	330 k ohm
R402, R502	5181482000	1 k ohm
R403, R503	5181500000	5.6 k ohm
R404, R504	5181514000	22 k ohm
R405, R505	5181479000	750 ohm
R406, R506	5181514000	22 k ohm
R407, R507	5181516000	27 k ohm
R408, R508	5181514000	22 k ohm
R409, R509	5181479000	750 ohm
R410, R510	5181538000	220 k ohm
R411, R511	5184757000	120 ohm 1W Metal Film
R412, R512	Δ5185664000	10 ohm $\frac{1}{2}$ W Non Flammable

### CAPACITORS

C401, C501	5173140000	Elec. 10 mfd 16V
C402, C502	5173104000	Elec. 1 mfd 50V
C403, C503	5171412000	Elec. 10 mfd 16V (BP)
C404, C504	5171892000	Mylar 0.033 mfd
C405, C505	5172616000	Polyst. 470 pfd
C406, C506	5171892000	Mylar 0.033 mfd
C407, C507	5054382000	Dip. Mica 22 pfd
C408, C508	5171412000	Elec. 10 mfd 16V (BP)

### MISCELLANEOUS

L401, L501	5160050000	Coil, 2 $\mu$ H
R601, R602	5150251000	Resistor, Variable 50 k ohm-B x 2
S601	5133016000	Switch, Rotary
	5122424000	Lapping Terminal WD-2
	512248000	Lapping Terminal WD-6

# BX-500/BX-300

## SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
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5158017000 PCB Assy

5157017000 PCB

### RESISTORS

All resistors are rated  $\pm 5\%$  tolerance,  $\frac{1}{4}$  watt and of carbon type.

R705, R805	5181312000	18 k ohm
R706, R806	5181306000	10 k ohm
R707, R807	5181298000	4.7 k ohm
R708, R808	5181310000	15 k ohm

### CAPACITORS

C701, C801	5172492000	Polyst.	330 pfd
C702, C802	5054824000	Mylar	0.033 mfd

### MISCELLANEOUS

R902	5150249000	Resistor, Variable	300 k ohm
S901	5132054000	Switch, lever	
S902	5132055000	Switch, lever	
S903	5132051000	Switch, lever	

## IN/OUTPUT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
----------	-----------	-------------

5158016000 PCB Assy

5157016000 PCB

### RESISTORS

All resistors are rated  $\pm 5\%$  tolerance,  $\frac{1}{4}$  watt and of carbon type.

R701, R801	5181544000	390 k ohm
R702, R802	5181530000	100 k ohm
R703, R803	5181490000	2.2 k ohm
R704, R804	5181490000	2.2 k ohm

### MISCELLANEOUS

J901	5128103000	Pin Jack, 4P
J902	5128102000	Pin Jack, 4P (w/DIN)

## INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	5101704000	BX-500 Owner's Manual	JAPAN
	5101705000	BX-500 Owner's Manual	U.S.A., CANADA
	5101706000	BX-500 Owner's Manual	All except JAPAN, U.S.A., CANADA
	5101701000	BX-300 Owner's Manual	JAPAN
	5101702000	BX-300 Owner's Manual	U.S.A., CANADA
	5101703000	BX-300 Owner's Manual	All except JAPAN, U.S.A., CANADA
	5124047000	Plug, Shoot Pin	

## ASSEMBLING HARDWARE CODING LIST

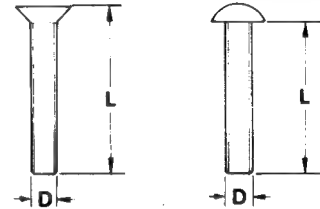
All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.



FOR EXAMPLE:

**B M 3 x 6**

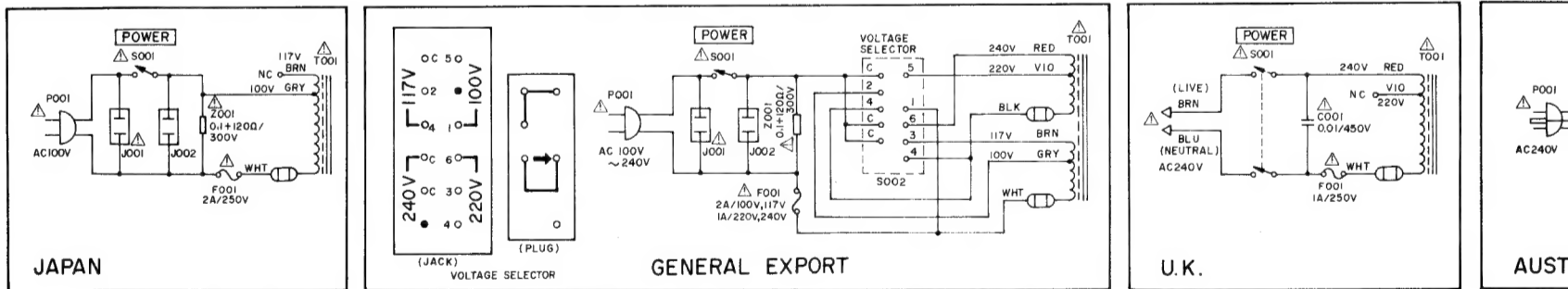
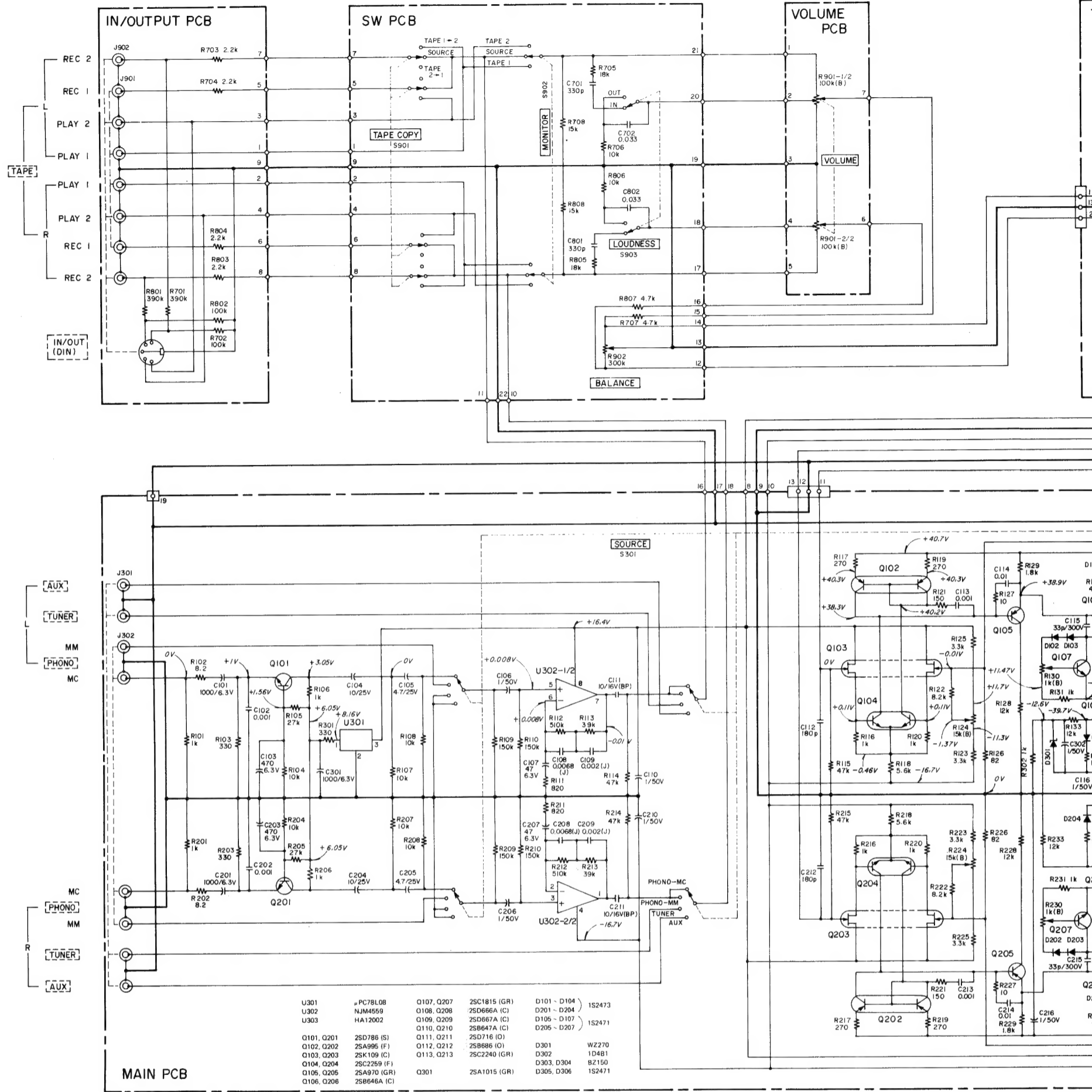
----- Length in mm (L)  
 ----- Diameter in mm (D) \*  
 ----- Metric System  
 ----- Nomenclature



\* Inner dia. for washers and nuts

	Code	Name	Type		Code	Name	Type
MACHINE SCREW	<b>R</b>	Round Head Screw		TAPPING SCREW	<b>BTA</b>	Binding Head Tapping Screw(A Type)	
	<b>P</b>	Pan Head Screw			<b>BTB</b>	Binding Head Tapping Screw(B Type)	
	<b>T</b>	Stove Head Screw (Truss)			<b>RTA</b>	Round Head Tapping Screw(A Type)	
	<b>B</b>	Binding Head Screw			<b>RTB</b>	Round Head Tapping Screw(B Type)	
	<b>F</b>	Flat Countersunk Head Screw		SETSCREW	<b>SF</b>	Hex Socket Setscrew(Flat Point)	
	<b>O</b>	Oval Countersunk Head Screw			<b>SC</b>	Hex Socket Setscrew(Cup Point)	
WOOD SCREW	<b>RW</b>	Round Head Wood Screw		<b>SS</b>	Slotted Socket Setscrew(Flat Point)		
TAPTITE SCREW	<b>PTT</b>	Pan Head Taptite Screw		WASHER	<b>E</b>	E-Ring (Retaining Washer)	
	<b>WTT</b>	Washer Head Taptite Screw			<b>W</b>	Flat Washer (Plain)	
SEMS SCREW	<b>BSA</b>	Binding Head SEMS Screw(A Type)			<b>SW</b>	Lock Washer (Spring)	
	<b>BSB</b>	Binding Head SEMS Screw(B Type)			<b>LWI</b>	Lock Washer (Internal Teeth)	
	<b>BSF</b>	Binding Head SEMS Screw(F Type)			<b>LWE</b>	Lock Washer (External Teeth)	
	<b>PSA</b>	Pan Head SEMS Screw(A Type)		<b>TW</b>	Trim Washer (Countersunk)		
	<b>PSB</b>	Pan Head SEMS Screw(B Type)		NUT	<b>N</b>	Hex Nut	

A  
B  
C  
D  
E  
F  
G  
H

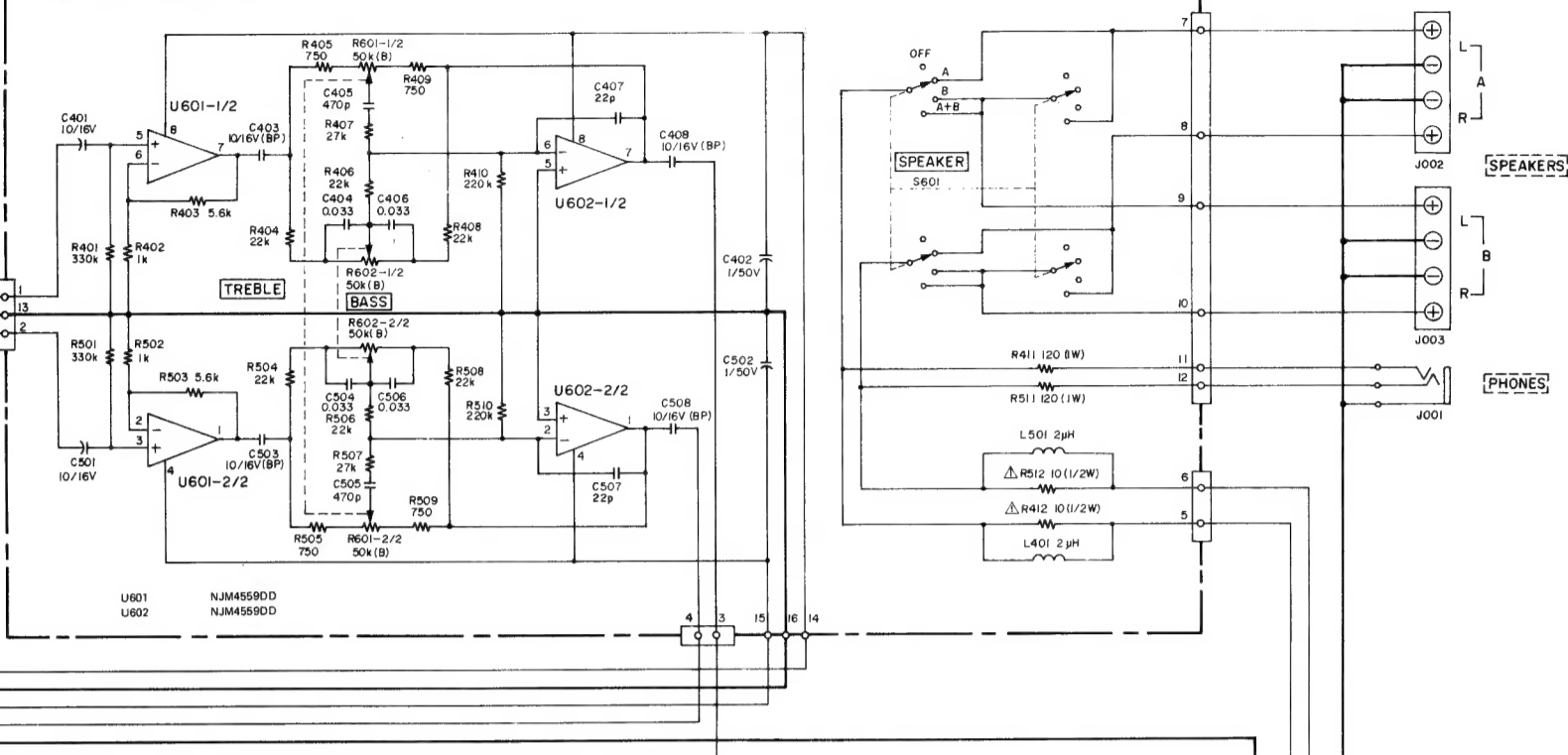


**NOTES**

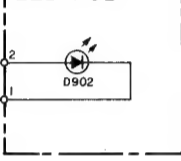
- ALL RESISTORS ARE 1/4 WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k = 1,000 OHMS, M = 1,000,000 OHMS).
- ALL CAPACITOR VALUES ARE IN MICROFARADS (p = PICO FARADS).
- DC VOLTAGES MEASURED WITH NO SIGNAL INPUT.
- △PARTS MARKED WITH THIS SIGN ARE SAFETY CRITICAL COMPONENTS. THEY MUST ALWAYS BE REPLACED WITH IDENTICAL COMPONENTS - REFER TO THE TEAC PARTS LIST AND ENSURE EXACT REPLACEMENT.



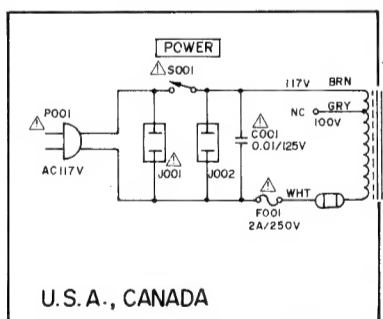
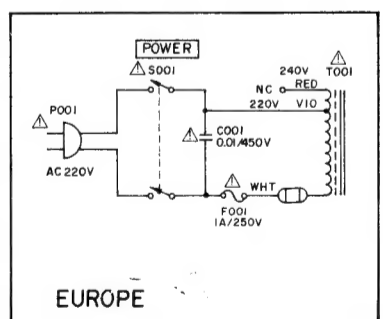
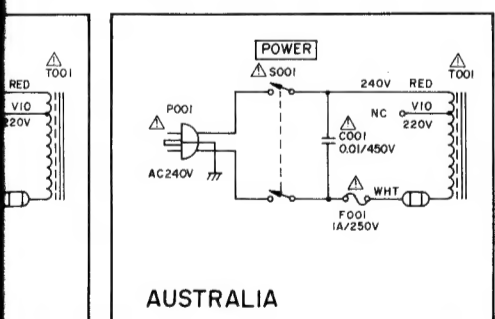
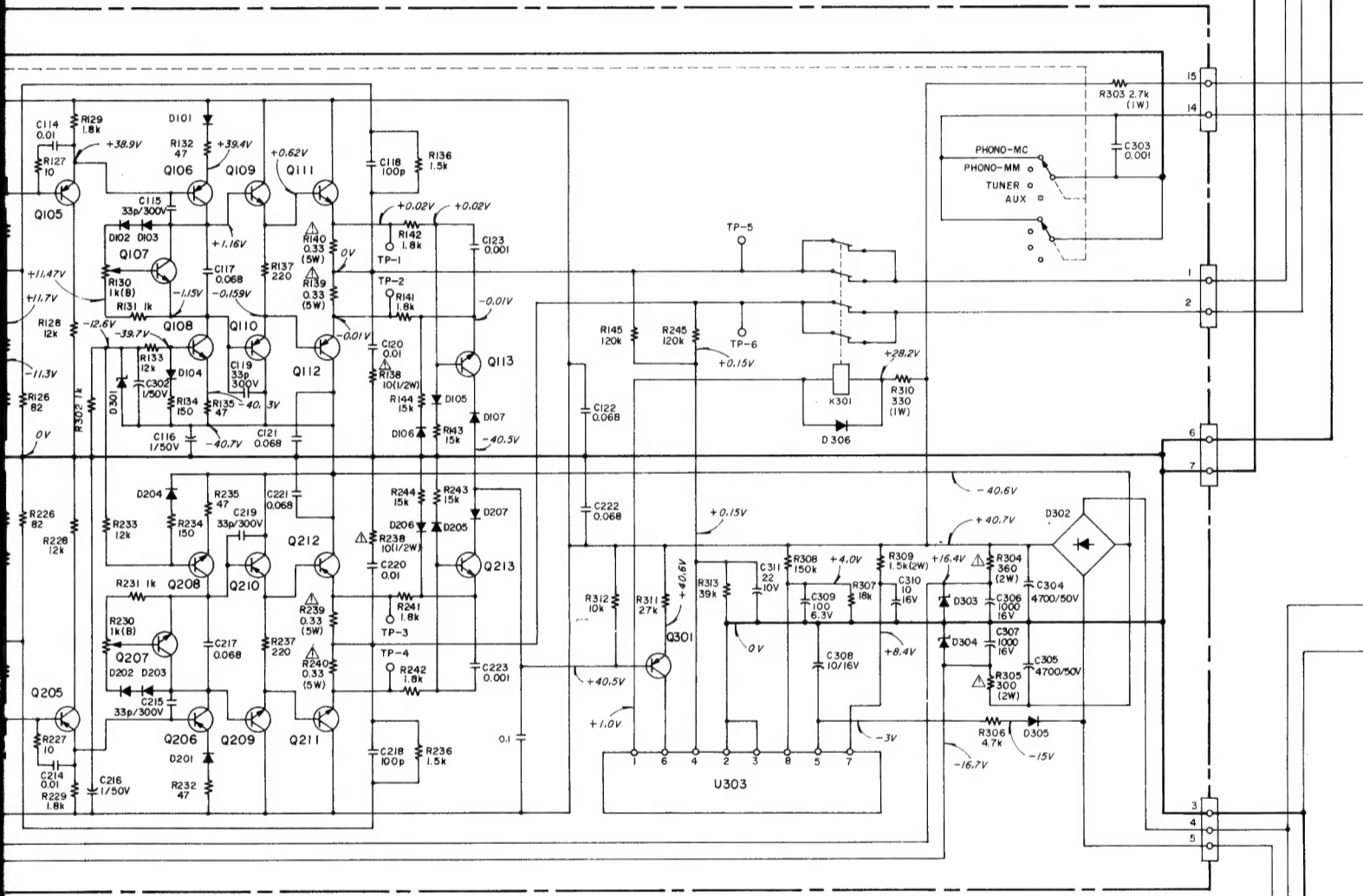
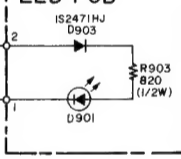
TONE CON AMPL PCB



LED PCB

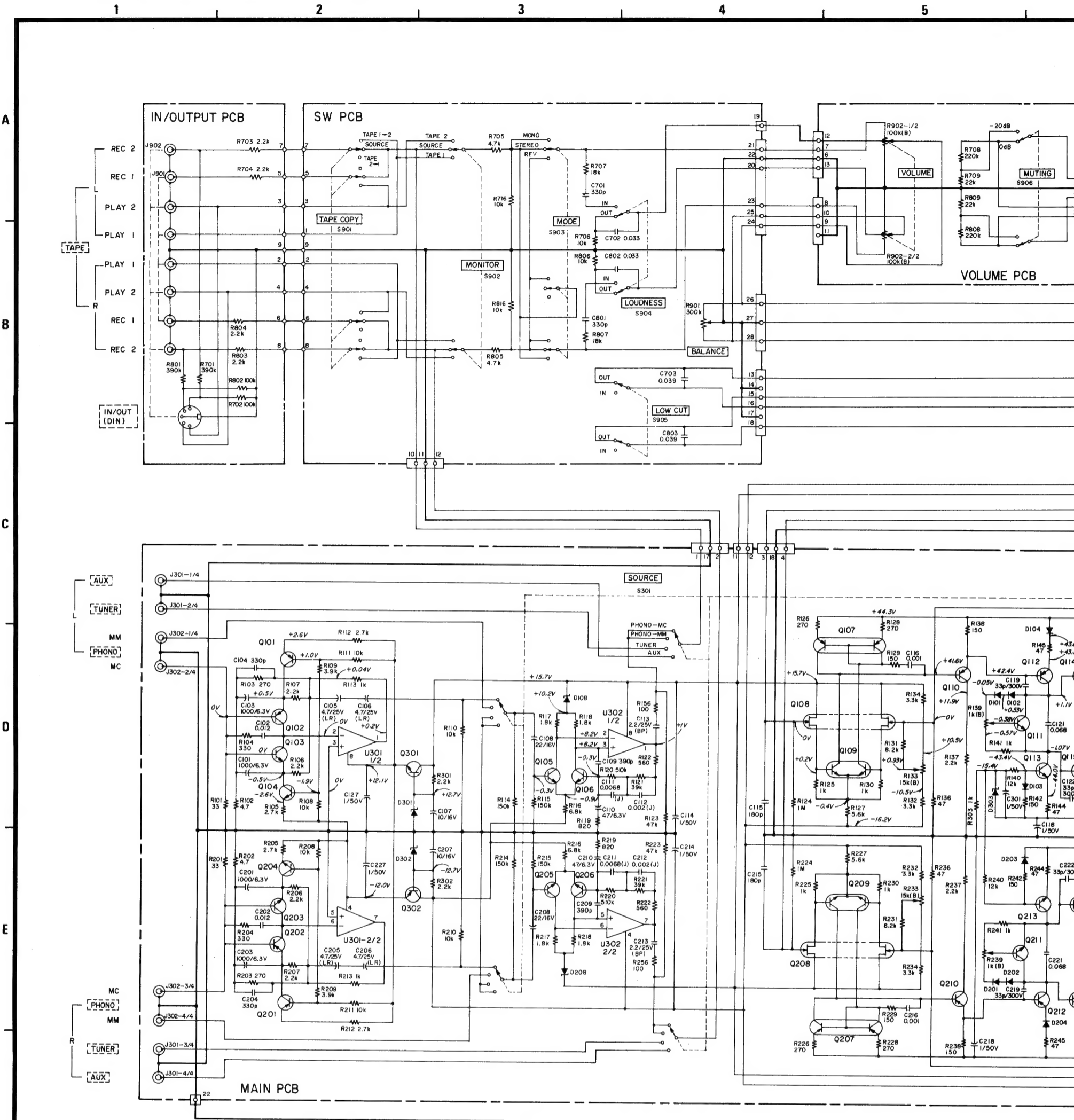


LED PCB



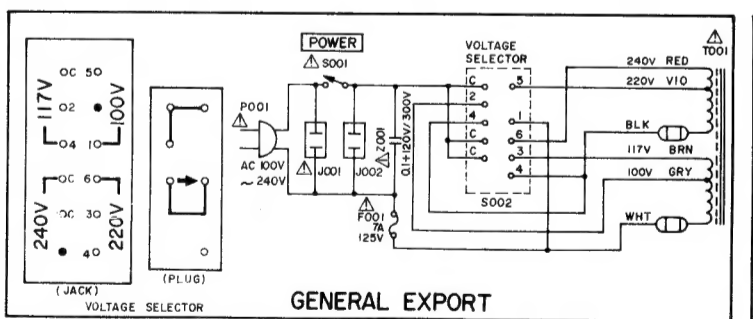
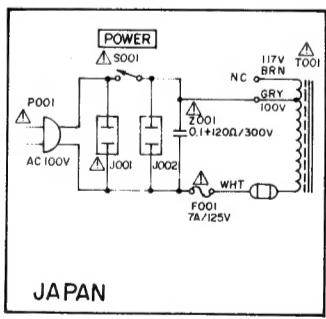
DC Integrated Amplifier  
**BX-300**

# TEAC SCHEMATIC DIAGRAM BX-500

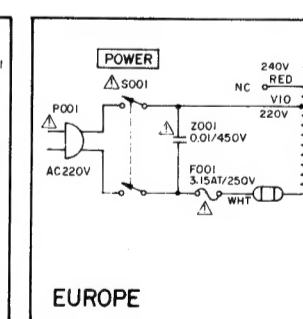
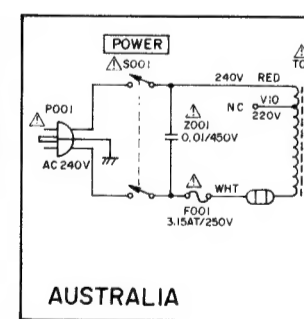
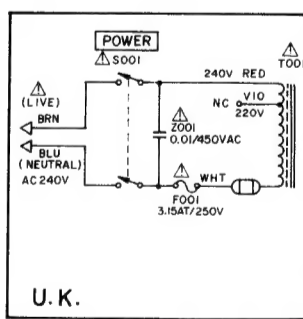
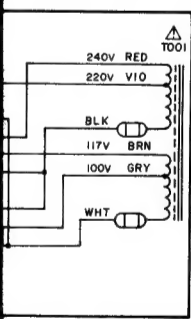
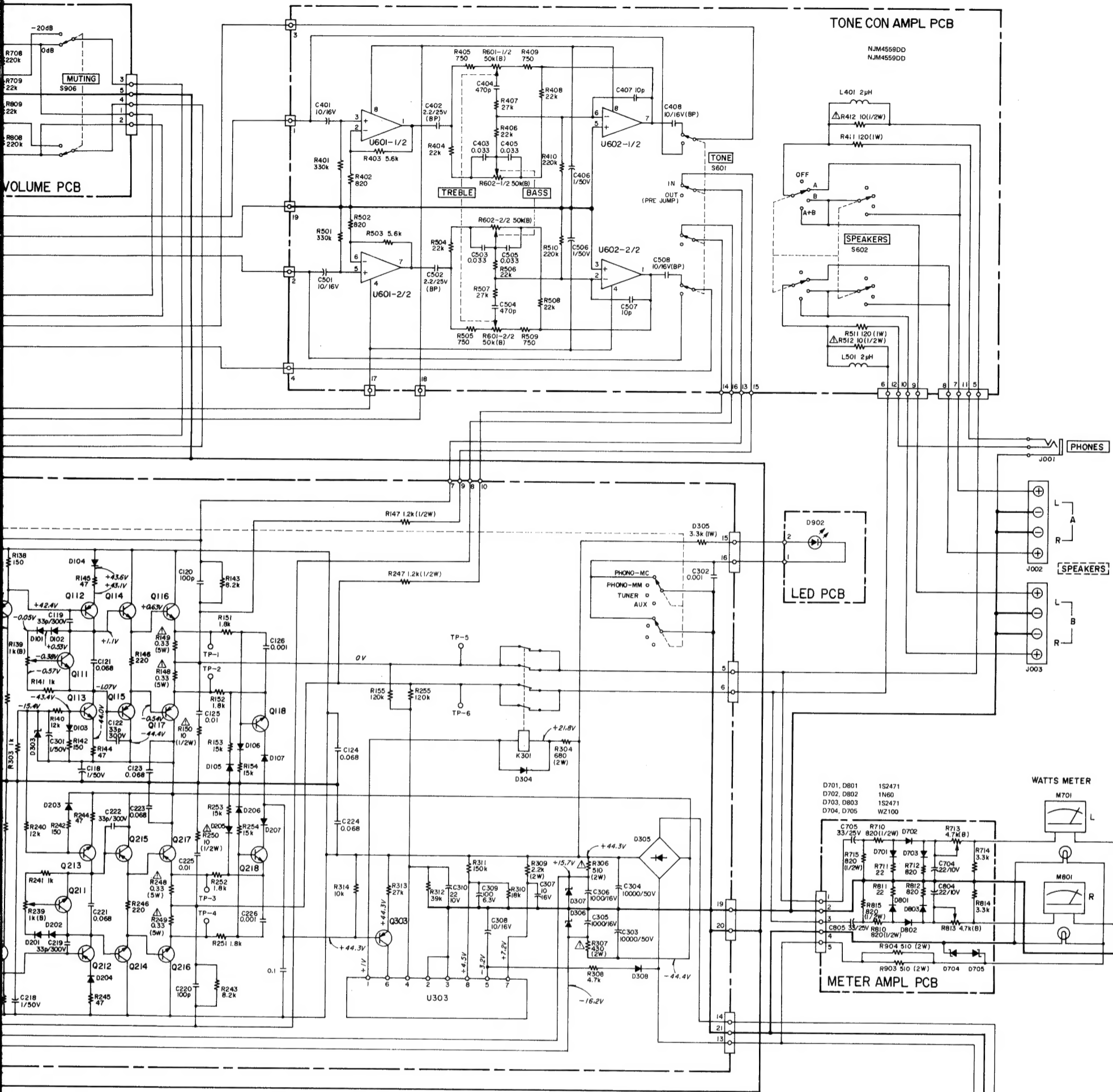


**MAIN PCB**

U301, U302	NJM4559DD	Q111, Q211	2SC1815 (IGR)	D101 - D104	152473
U303	HA12002	Q112, Q212	2SA949 (Y)	D201 - D204	152473
Q101, Q201	2SA1015 (GR)	Q113, Q213	2SC2229 (Y)	D105 - D107	152471
Q102, Q202	2SB737 (S) or (R)	Q114, Q214	2SC2235 (Y)	D205 - D207	152471
Q103, Q203	2SD788 (S) or (R)	Q115, Q215	2SA985 (Y)	D108, D208	HZ6A3U
Q104, Q204	2SC1815 (IGR)	Q116, Q216	2SD718 (O)	D301, D302	HZ12BL
Q105, Q205	2SC2240 (IGR)	Q117, Q217	2SB680 (O)	D303	W2270
Q106, Q206	2SC2240 (GR)	Q118, Q218	2SC2240 (IGR)	D304	152471
Q107, Q207	2SA995 (F)	Q301	2SC1815 (IGR)	D305	3D4B41
Q108, Q208	2SK109 (C)	Q302, Q303	2SA1015 (IGR)	D306, D307	W2150
Q109, Q209	2SC2259 (F)			D308	152471
Q110, Q210	2SA970 (IGR)				



- NOTES**
1. ALL RESISTORS ARE 1/4 WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k = 1,000 OHMS, M = 1,000,000 OHMS).
  2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p = PICOFARADS).
  3. DC VOLTAGES MEASURED WITH NO SIGNAL INPUT, AND WITH THE TONE SWITCH IN THE OUT (PRE JUMP) POSITION.
  4. ΔPARTS MARKED WITH THIS SIGN ARE SAFETY CRITICAL COMPONENTS. THEY MUST ALWAYS BE REPLACED WITH IDENTICAL COMPONENTS - REFER TO THE TEAC PARTS LIST AND ENSURE EXACT REPLACEMENT.



High Speed DC Integrated Amplifier  
**BX-500**